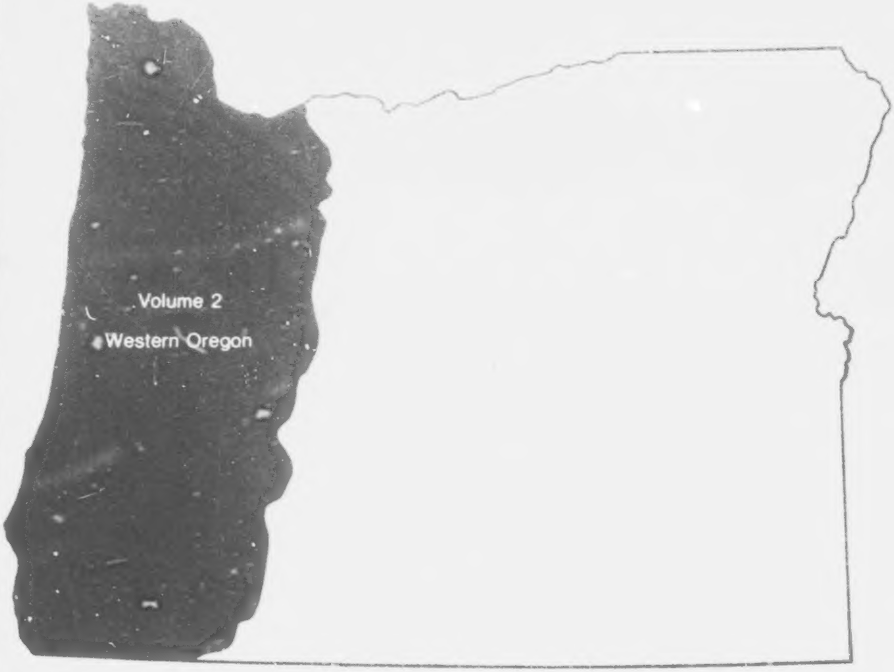
1859

Water Resources Data
Oregon
Water Year 1987

Volume 2. Western Oregon


Volume 2
Western Oregon

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-87-2
Prepared in cooperation with the Oregon Water Resources
Department and with other agencies

1

CALENDAR FOR WATER YEAR 1987

1986

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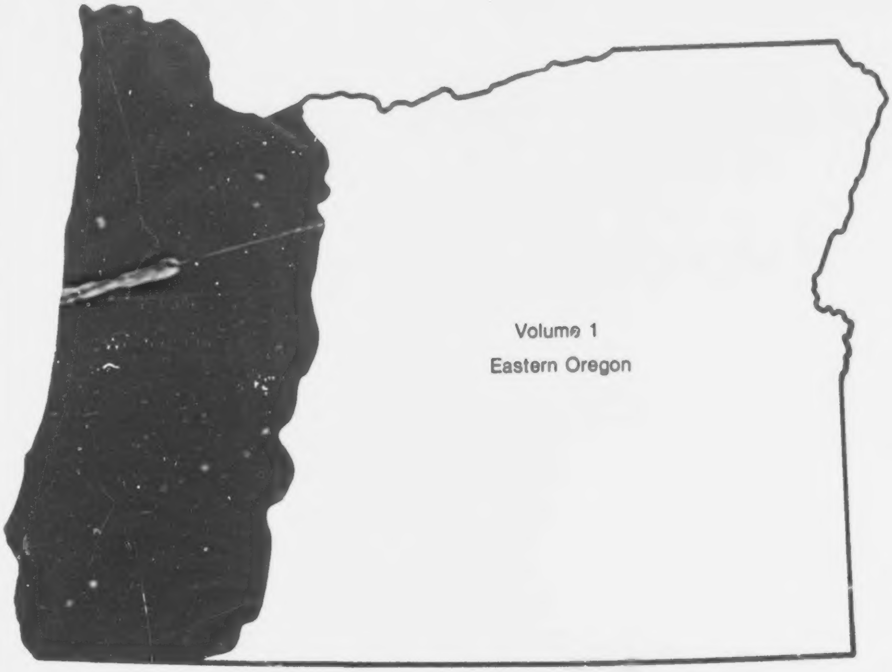
DEPARTMENT OF THE INTERIOR
March 3, 1849

1859

Water Resources Data
Oregon
Water Year 1987

Volume 2. Western Oregon

by C.W. Alexander, T.A. Herrett, R.L. Kraus, R.L. Moffatt, and M.L. Smith



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-87-2
Prepared in cooperation with the Oregon Water Resources
Department and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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10615 S. E. Cherry Blossom Drive
Portland, Oregon 97216

1989

PREFACE

This volume of the annual Oregon hydrologic data report is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Oregon are contained in two volumes as follows:

Volume 1: Eastern Oregon
Volume 2: Western Oregon

The report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who edited and assembled the reports. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of Oregon and with other agencies under the general supervision of Marvin O. Fretwell, State Chief, Oregon Office, and T. John Conomos, Regional Hydrologist, Western Region.

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Prepared in cooperation with the State of Oregon and with other agencies.

16. Abstract (Limit: 200 words)

Water Resources Data for the 1987 water year for Oregon consist of records of stage, discharge, and water quality of streams; and stage, contents, and water quality of lakes and reservoirs. This report, in two volumes, contains discharge records for 264 gaging stations; stage only records for 8 gaging stations; stage and contents for 39 lakes and reservoirs; water quality for 69 stations, and water quality for 3 precipitation stations. Also included are 5 crest-stage, partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Oregon.

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Letter after station name designates type of data: (d) discharge; (e) elevation; (g) gage height; (v) contents; (c) chemical, including periodic biological, microbiological, sediment, pesticide, and radiochemical where applicable; (s) daily suspended sediment; (t) water temperature; and (k) specific conductance.

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WATER RESOURCES DATA FOR OREGON 1987

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with state agencies, obtains a large amount of data pertaining to the water resources of Oregon each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Oregon."

This report includes records on surface water in the State. Specifically, it contains: (1) Discharge records for 264 stream-gaging stations, stage only records for 8 gaging stations, 211 partial-record or miscellaneous streamflow stations, and 5 crest-stage, partial-record streamflow stations; (2) stage and content records for 39 lakes and reservoirs; and (3) water-quality records for 63 streamflow-gaging stations and 6 ungaged streamsites.

This series of annual reports for Oregon began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one or two volumes, data on quantities of surface water, quality of surface and ground water, and ground-water levels. In 1981, the annual report was divided into two volumes: Volume 1 described the activities for Western Oregon, while Volume 2 described the activities for Eastern Oregon. Beginning with the 1985 water year, presentation of ground-water levels in this report was discontinued.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Oregon were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 10, 11, 13, and 14." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." These Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Publications similar to this report are published annually by the Geological Survey for all states. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report OR-87-1" and "U.S. Geological Survey Water-Data Report OR-87-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on back of title page or by telephone (503) 231-2009.

COOPERATION

The U.S. Geological Survey and organizations of the State of Oregon have had cooperative agreements for the systematic collection of surface-water records since 1905. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

State of Oregon Water Resources Department, William F. Young, Director.
State of Oregon Department of Fish and Wildlife, John R. Donaldson, Director
Coos Bay-North Bend Water Board, P. Matson, General Manager.
Eugene Water and Electric Board, Jean Reeder, General Manager.
Douglas County, John Youngquist, Coordinator.
City of McMinnville, Robin R. Morecroft, General Manager.
City of Portland, Bureau of Water Works, Edward Tenny, Administrator.
The Confederated Tribes of the Umatilla Indian Reservation, E. H. Patawa, Chairman, Board of Trustees.
The Confederated Tribes of the Warm Springs Indian Reservation, D. McClelland, Control Manager.

Assistance in the form of funds or services was provided by the Forest Service, U.S. Department of Agriculture; Corps of Engineers, U.S. Army; Bonneville Power Administration, U.S. Department of Energy; Bureau of Land Management, Bureau of Reclamation, Fish and Wildlife Service, National Park Service, U.S. Department of the Interior in collection of records for stage and discharge stations and water-quality stations published in this report.

The following organizations aided in collecting records for stations under Federal Energy Regulatory Commission licenses: Eugene Water & Electric Board; Pacific Power & Light Co.; Portland General Electric Co.; Middle Fork Irrigation District; Idaho Power Co., Idaho.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The hydrology of Oregon is influenced by five mountain ranges with the Cascade Range providing a natural division between western and eastern Oregon. These ranges divide the state into drainage basins and greatly affect the distribution of precipitation. Hydrologic patterns are generally uniform from drainage basin to drainage basin throughout western Oregon; whereas in eastern Oregon, hydrologic patterns vary widely between drainage basins.

Western Oregon, which composes about one-third of the total area of the state, has a climate characterized by moderate temperatures, wet winters, and dry summers. About 80 percent of the precipitation occurs between October and March. Annual precipitation ranges from about 20 inches per year in the lower elevations in the southern part of the area to about 200 inches per year in the Coast and Cascade Ranges. In general, streamflow characteristics are similar, with most of the runoff and flooding on both large and small streams being caused by winter rains. Major floods have occurred when winter rains combine with melting snow.

Eastern Oregon has more complex hydrologic patterns than western Oregon. Precipitation is less than 10 inches per year in the semiarid regions, such as parts of the north-central area, the closed basin in south-central Oregon, and southeastern Oregon. The northeastern part of the state receives as much as 80 inches of precipitation per year, much of it occurring as snowfall. On large streams, flooding can result from winter rains and (or) seasonal snowmelt; in smaller drainage basins, flooding can result from winter rains, seasonal snowmelt, and convection storms.

Surface-water Conditions

Precipitation for the 1987 water year was about 80 percent of normal across the State, and ranged between 70 and 90 percent of normal. Precipitation during September was the farthest below normal for a month, amounting to about 10 percent of normal across the State. Monthly precipitation was the farthest above normal throughout the State during July, with several areas reporting in excess of 500 percent of normal.

Precipitation for the three-month period ending December 31, 1986 was generally below average. Averages ranged from a high of 76 percent in the Willamette area to a low of 32 percent in the Lake County-Goose Lake area.

Conditions moderated during the three-month ending June 30 was about normal for western Oregon and about 60 percent of normal in eastern Oregon.

Precipitation for the three-month period ending June 30 was about normal for western Oregon and about 60 percent of normal in eastern Oregon.

During the last quarter of the water year, new precipitation records at several locations were established. July was the wettest in 111 years in Roseburg and 84 years in Bend. The monthly total for Bend amounted to nearly one third of the annual average precipitation.

Snowpack accumulation began in November. As of January 1, 1987, the mountain snowpack, as reported by the Soil Conservation Service, was well below normal. The snowpack increased at less-than-normal rates through the winter. By May 1 most of the snowpack below 5,500 feet was gone and high elevation snowpack levels were below normal.

The preceding summary of conditions was compiled from monthly reports prepared by the National Weather Service, Soil Conservation Service, Corps of Engineers, and State of Oregon Climatologist Office.

The annual mean runoff in both western and eastern Oregon during the 1987 water year was below normal. Monthly mean discharges are compared with long-term medians (1951-80), at four representative sites throughout the State in figures 1a and 1b. The monthly mean flows were significantly less than normal during spring and summer at both western and eastern sites.

No significant flooding occurred in Oregon during the 1987 water year. Peak flows at gaging stations in western Oregon occurred February 1, 2, while peaks in eastern Oregon occurred in March and April. Recurrence intervals ranged from one to three years. Peak discharges for some representative gaging stations are shown in Table 1.

Table 1.--Comparison of peak discharge for the 1987 water year with peak discharge for the period of record at long-term stations

Station number	Station name	Drainage area (mi^2)	Peak discharge 1987 water year Date	Peak discharge 1987 water year ft^3/s	Exceedance probability	Peak discharge period of record Date	Peak discharge period of record ft^3/s
10396000	Donner und Blitzen River near Frenchglenn	a200	Apr. 30	717	.83	Apr. 26, 1978	4,270
11502500	Williamson River below Sprague River, near Chiloquin	a3,000	Mar. 16	1,970	.80	Dec. 26, 1964	16,100
13181000	Owyhee River near Rome	a8,000	Mar. 7	3,900	---	Feb. 19, 1986	41,400
13214000	Malheur River near Drewsey	a910	Mar. 13	1,510	.67	Dec. 23, 1964	12,000
13331500	Minam River at Minam	a240	Apr. 30	2,600	.74	June 16, 1974	6,260
14048000	John Day River at McDonald Ferry	a7,580	Mar. 15	11,900	.50	Dec. 24, 1964	42,800
14137000	Sandy River near Marmot	262	Jan. 31	8,110	.85	Dec. 22, 1964	61,400
14178000	North Santiam River below Boulder Creek, near Detroit	216	Nov. 27	5,890	.69	Dec. 22, 1964	26,700
14301000	Nehalem River near Foss	667	Mar. 3	31,700	.32	Jan. 20, 1972	46,900
14321000	Umpqua River near Elkton	3,683	Feb. 2	71,600	.74	Dec. 23, 1964	265,000
14325000	South Fork Coquille River at Powers	169	Feb. 2	13,100	.65	Dec. 22, 1964	48,900

a Approximately.

NOTE.--Exceedance probability refers to the probability that an event will exceed a specific magnitude in a given time period. A flow of 200 ft^3/s with an exceedance probability of 0.5 means that there is a 50 percent chance that the flow will exceed 200 ft^3/s in any one year.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of more than 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in national or regional water-quality planning and management. The several hundred sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objective of NASQAN is to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting. The design of the network is intended to provide data for (1) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (2) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (3) a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150 station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1987 water year that began October 1, 1986, and ended September 30, 1987. A calendar of the water year is provided on the inside of the front cover The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface water. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The two systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for surface-water stations where only miscellaneous measurements are made. Basin designation is based on the Hydrologic Unit Map for Oregon prepared in cooperation with the U.S. Water Resources Council (1974).

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 14105700, which appears just to the left of the station name, includes the two-digit Part number "14" plus the six-digit downstream-order number "105700." The Part number designates the major river basin; for example, part "14" refers to the Pacific slope basins in Oregon and lower Columbia River basin.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relations between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relation between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey that are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations an acoustic velocity meter (AVM) is used instead of the slope method. The AVM measures both water-surface elevation and velocity from which discharge can be computed directly.

In computing records of lake or reservoir contents, it is necessary to have information available from surveys, curves, or tables that define the relation of stage to content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relation changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relation. Discharges over lake or reservoir spillways are computed from stage-discharge relations much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the validity of the recorded gage height is so questionable that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages are based on information developed by the Hydraulics and Hydrology Committee of the Pacific Northwest River Basins Commission.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means the instantaneous maximum discharge was revised; "(m)" the instantaneous minimum was revised; and "(P)" the peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see "DEFINITION OF TERMS"), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, special methods of computation, conditions that affect natural flow at the station and, possibly, other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the Oregon office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual state data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under the "REMARKS" paragraph. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record. Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; the nearest tenth between 1.0 and 10 ft^3/s; whole numbers between 10 and 1,000 ft^3/s; and 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff because of the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, changes in contents of reservoirs, or other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Monthly records for several ungaged sites are given in a separate section following the gaged sites. The accuracy of records for ungaged sites is generally lower than that for gaged sites, depending on the precision of the computation method and the accuracy of data used in the computations. For most gaging stations, unpublished, detailed information, on file in the Oregon office, includes discharge measurements, gage-height records, and rating tables. Many gaging-station records in Oregon through 1982 have been analyzed to determine several statistical summaries: (1) The number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

Other Federal and State agencies have collected discharge data at other sites in Oregon during the current water year. Although these records have not been published by the U.S. Geological Survey, the National Water Data Exchange, NAWDEX, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of these sites and will furnish information about them.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, it is important that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, treating the samples to prevent changes in quality pending analysis, and shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," (TWRI), Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" in this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey Oregon office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see "DEFINITION OF TERMS") are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey office whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Oregon office.

Sediment

Suspended-sediment concentrations are determined from samples collected by one of the standard sampling techniques discussed in TWRI, Book 3, Chapter C2, "Field methods for measurement of fluvial sediment." Samples are obtained using standard depth- or point-integrating samplers, or by means of an approved pumping sampler. Mean concentrations for the sampled cross section are in turn determined from these samples.

During periods of rapidly changing flow or rapidly changing suspended-sediment concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, periodic measurements of particle-size distributions for the suspended-sediment, bed-load, and bed-material samples are included for stations where samples were obtained to measure this parameter.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for identification of biological populations, samples for indicator bacteria and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

> Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters (mL) of sample.
>
> Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Base flow. See Base runoff.

Base runoff refers to sustained or fair weather runoff. In most streams, base runoff is composed largely of ground-water effluent. The term base flow is often used in the same sense as base runoff. However, the distinction is the same as that between streamflow and runoff. When the concept in the terms base flow and base runoff is that of the natural flow in a stream, base runoff is the logical term.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnance at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second-day [(ft^3/s)/d] is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Cubic feet per second per square mile [(ft^3/s)/mi^2] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45-um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO3$).

Hydrologic Bench-Mark Network is a network of more than 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U S. Geological Survey to meet many of the information needs of government agencies and other groups involved in national or regional water-quality planning and management. The several hundred sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objective of NASQAN is to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting. The design of the network is intended to provide data for (1) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (2) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (3) a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and (or) water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation
Silt..........	.004 - .062	Sedimentation
Sand..........	.062 - 2.0	Sedimentation or sieve
Gravel........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (1 x 10E-12) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 10E+10 radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time)] for periphyton and macrophytes and [mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg 02/(m^2.time)] for periphyton and macrophytes and [mg 02/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed very close to the bed surface. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Seven-day 10-year low flow (7 Q10) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-um filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classificiation of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	*Hexagenia*
Species	*Hexagenia limbata*

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

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1-D1. WATER TEMPERATURE--INFLUENTIAL FACTORS, FIELD MEASUREMENT, AND DATA PRESENTATION, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. GUIDELINES FOR COLLECTION AND FIELD ANALYSIS OF GROUND-WATER SAMPLES FOR SELECTED UNSTABLE CONSTITUENTS, by W. W. Wood: USGS--TWRI book 1, Chapter D2. 1976. 24 pages.

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3-A13. COMPUTATION OF CONTINUOUS RECORDS OF STREAMFLOW, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

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3-A17. ACOUSTIC VELOCITY METER SYSTEMS, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

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3-C3. COMPUTATION OF FLUVIAL-SEDIMENT DISCHARGE, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

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PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

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5-C1. LABORATORY THEORY AND METHODS FOR SEDIMENT ANALYSIS, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. FINITE-DIFFERENCE MODEL FOR AQUIFER SIMULATION IN TWO DIMENSIONS WITH RESULTS OF NUMERICAL EXPERIMENTS, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. COMPUTER MODEL OF TWO-DIMENSIONAL SOLUTE TRANSPORT AND DISPERSION IN GROUND WATER, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

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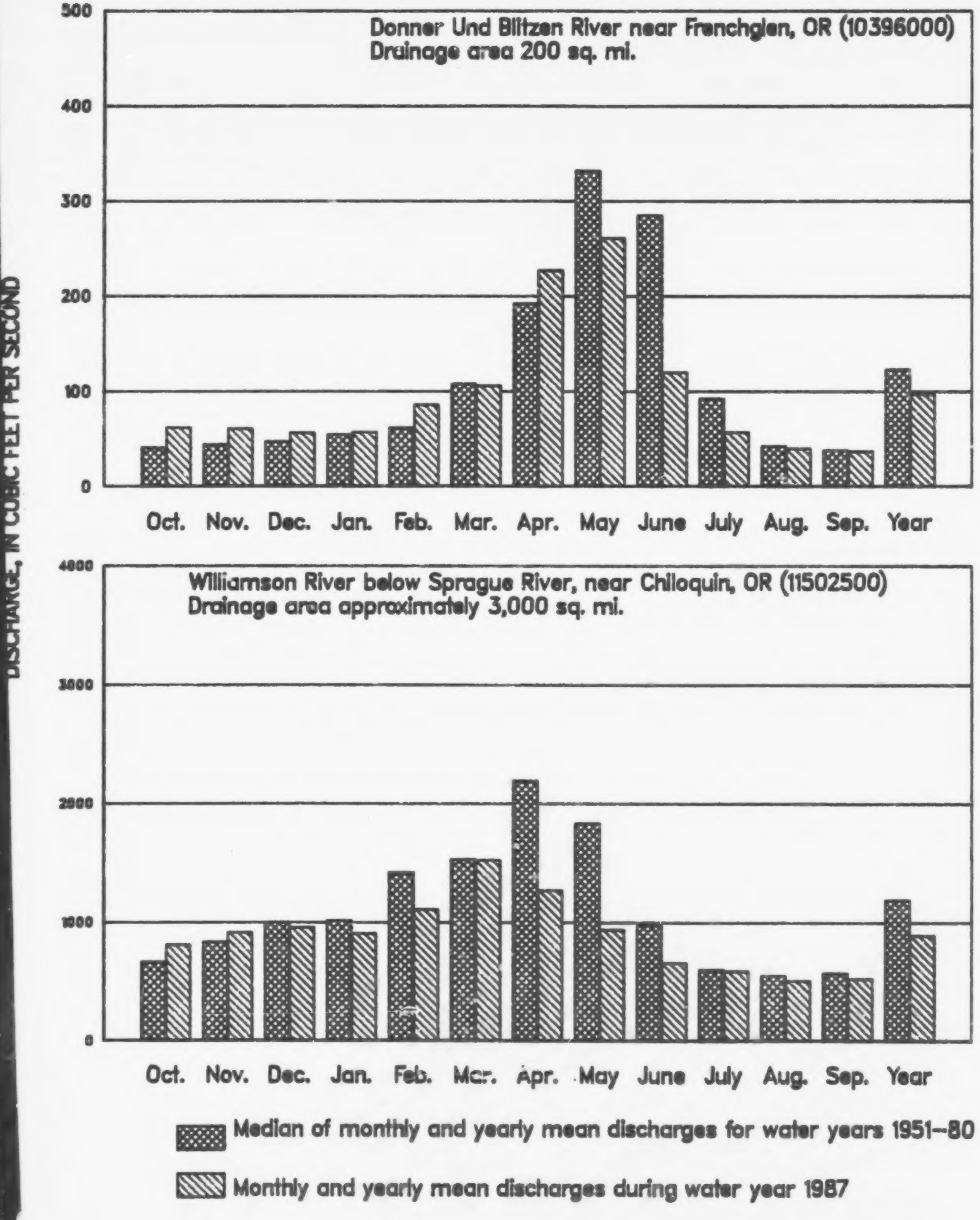
8-A2. INSTALLATION AND SERVICE MANUAL FOR U.S. GEOLOGICAL SURVEY MANOMETERS, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. CALIBRATION AND MAINTENANCE OF VERTICAL-AXIS TYPE CURRENT METERS, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.



Donner Und Blitzen River near Frenchglen, OR (10396000)
Drainage area 200 sq. mi.

Williamson River below Sprague River, near Chiloquin, OR (11502500)
Drainage area approximately 3,000 sq. mi.

Figure 1a.--Discharge during 1987 water year compared with median discharge for period 1951-80 for two representative gaging stations in Eastern Oregon.

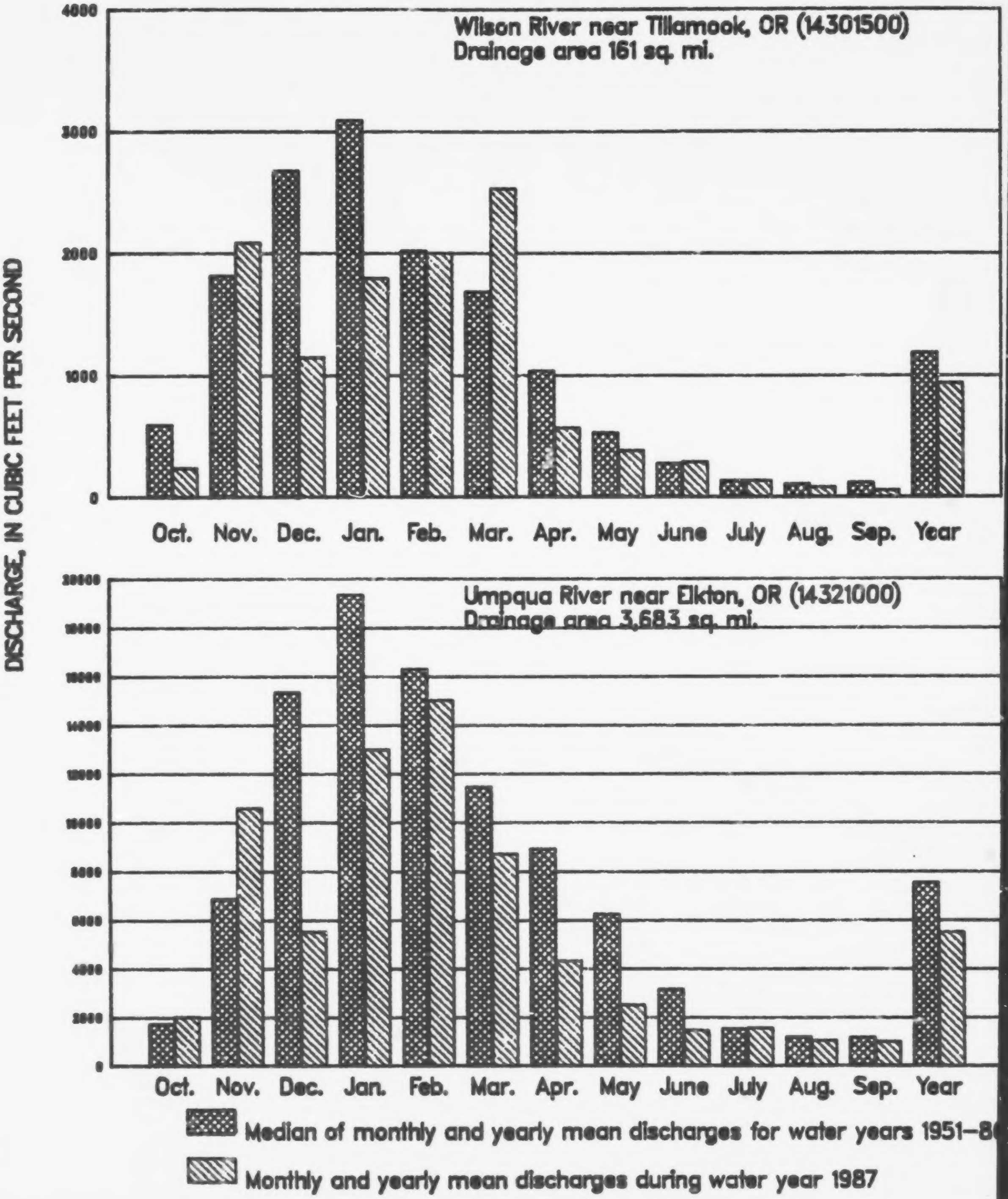


Figure 1b.--Discharge during 1987 water year compared with median discharge for period 1951-80 for two representative gaging stations in Western Oregon.

REMARK CODES.--The following remark codes may appear with the water-quality data in this section:

PRINTED OUTPUT	REMARK
E	Estimated value
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
M	Presence of material verified but not quantified

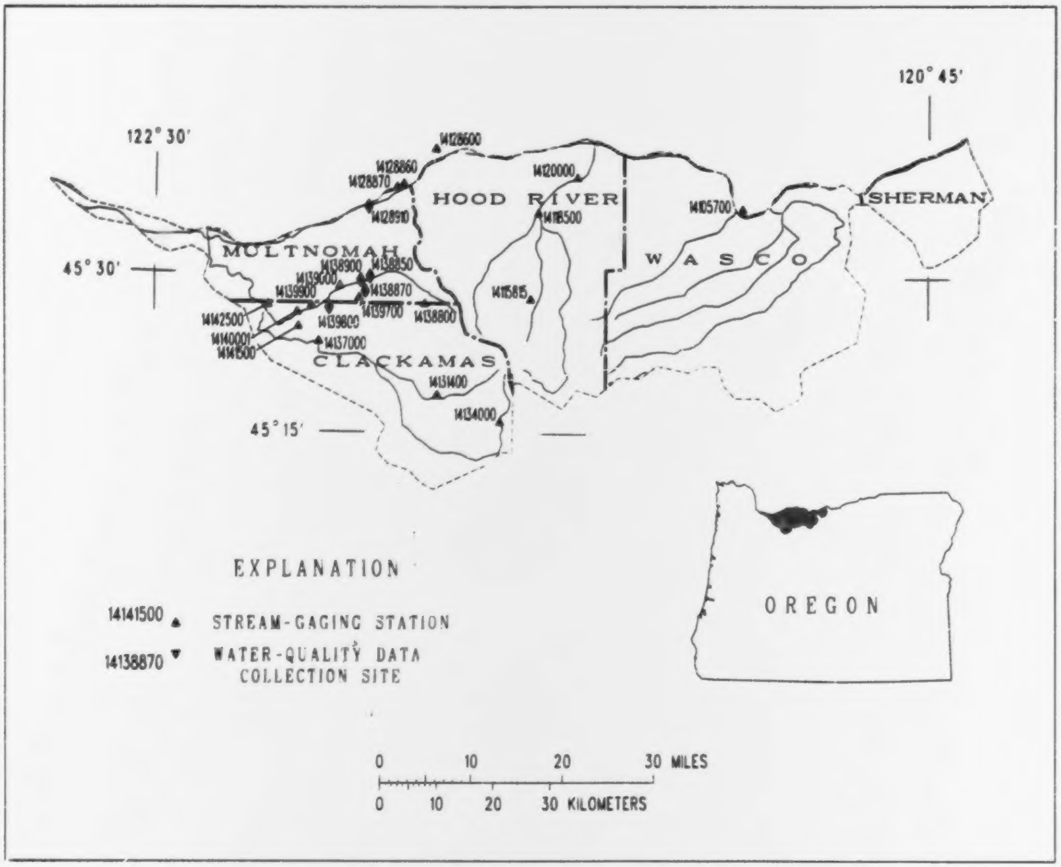

122° 30'
120° 45'
45° 30'
45° 15'
HOOD RIVER
MULTNOMAH
CLACKAMAS
WASCO
SHERMAN
14128600
14128860
14128870
14128910
14120000
14118500
14105700
14115815
14138900
14138850
14139000
14139900
14138870
14139700
14138800
14142500
14139800
14140001
14141500
14137000
14131400
14134000
OREGON
EXPLANATION
14141500 ▲ STREAM-GAGING STATION
14138870 ▼ WATER-QUALITY DATA COLLECTION SITE
0 10 20 30 MILES
0 10 20 30 KILOMETERS

Figure 2.--Location of surface-water and water-quality stations in the Lower Deschutes River, Middle and Lower Columbia River, and Sandy River basins.

14128860 COLUMBIA RIVER AT BONNEVILLE DAM, OR

LOCATION.--Lat 45°38'36", long 121°56'21", in sec.22, T.2 N., R.7 E., Multnomah County, Hydrologic Unit 17080001, on north shore of Bradford Island, 200 ft upstream from Bonneville Dam, at mile 146.1.

DRAINAGE AREA.--239,900 mi^2, approximately.

PERIOD OF RECORD.--May 1981 to September 1987 (gage heights only) (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream. No record Oct. 1 to June 25 due to construction.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 77.95 ft Jan. 21, 1986; minimum, 69.65 ft Oct. 25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 76.71 ft June 27; minimum recorded, 73.50 ft Sept. 30.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	76.26	74.04	75.22	75.86	74.44	75.06	76.09	74.45	75.27
2	---	---	---	76.52	74.12	75.26	75.98	74.66	75.19	76.29	74.69	75.55
3	---	---	---	76.51	75.15	75.90	75.80	74.79	75.24	76.44	75.44	75.97
4	---	---	---	76.29	75.21	75.61	75.66	74.17	74.99	75.89	74.89	75.31
5	---	---	---	75.97	75.23	75.45	76.07	74.41	75.21	76.05	74.90	75.50
6	---	---	---	75.73	74.82	75.24	76.14	74.56	75.18	76.14	75.56	75.83
7	---	---	---	75.27	74.42	74.93	76.08	73.92	75.04	76.11	74.99	75.63
8	---	---	---	76.52	74.45	75.39	76.29	74.90	75.42	76.26	74.85	75.54
9	---	---	---	76.34	74.59	75.68	76.03	74.76	75.36	75.65	74.77	75.25
10	---	---	---	76.59	74.35	75.75	75.99	74.81	75.34	75.47	74.39	74.95
11	---	---	---	76.50	74.11	75.62	75.90	74.27	74.91	76.08	74.15	75.20
12	---	---	---	76.66	74.91	75.77	76.11	73.93	74.92	76.04	74.87	75.48
13	---	---	---	76.44	74.30	75.56	76.02	75.01	75.36	75.87	75.19	75.60
14	---	---	---	76.51	74.59	75.73	76.45	74.07	75.22	76.22	74.77	75.51
15	---	---	---	76.60	74.33	75.59	76.06	74.84	75.45	76.14	74.36	75.40
16	---	---	---	76.56	74.95	75.85	75.62	74.57	75.04	75.78	74.48	75.23
17	---	---	---	76.36	75.03	75.73	76.06	74.29	75.31	75.72	74.14	75.13
18	---	---	---	76.36	75.31	75.83	76.04	74.81	75.55	75.89	74.35	75.08
19	---	---	---	76.39	75.34	75.84	76.29	74.83	75.60	75.54	74.46	75.14
20	---	---	---	75.89	74.42	75.17	76.26	74.73	75.51	75.65	74.80	75.26
21	---	---	---	75.95	74.42	75.16	76.21	74.96	75.59	75.36	74.31	74.85
22	---	---	---	76.13	74.58	75.31	76.17	75.29	75.80	76.19	74.62	75.51
23	---	---	---	75.84	74.78	75.24	76.36	74.97	75.65	76.06	74.57	75.30
24	---	---	---	76.08	74.39	75.23	76.36	74.79	75.74	76.50	74.74	75.44
25	---	---	---	76.49	74.81	75.65	76.34	75.24	75.92	76.27	74.21	75.40
26	76.44	74.36	75.76	76.30	75.38	75.78	76.36	74.77	75.70	76.42	74.25	75.32
27	76.71	75.50	76.04	76.15	75.20	75.64	75.99	74.59	75.43	75.94	74.67	75.21
28	76.68	75.63	76.12	76.40	74.72	75.65	75.96	74.26	75.17	76.07	74.20	75.26
29	76.39	75.77	76.07	76.28	74.91	75.53	75.65	74.71	75.29	75.95	73.86	74.95
30	76.67	74.63	75.63	76.21	74.65	75.40	75.68	74.98	75.34	75.49	73.50	74.58
31	---	---	---	75.78	74.18	74.98	76.39	74.33	75.31	---	---	---
MONTH	---	---	---	76.66	74.04	75.51	76.45	73.92	75.35	76.50	73.50	75.32

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR

LOCATION.--Lat 45°38'20", long 121°57'16", in sec.21, T.2 N., R.7 E., Multnomah County, Hydrologic Unit 17080001, on left bank 0.4 mi downstream from Bonneville Dam left bank powerhouse, 0.5 mi upstream from Tanner Creek, and at mile 145.0.

DRAINAGE AREA.--239,900 mi^2, approximately.

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 30.40 ft June 11, 1981; minimum, 7.00 ft Oct. 4, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 22.36 ft May 18; minimum observed, 7.95 ft July 27.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.77	11.10	11.51	14.59	12.63	13.61	16.20	14.45	15.32	16.43	14.65	15.38
2	12.17	9.47	11.06	12.69	11.33	11.87	16.03	15.26	15.59	15.27	13.47	14.30
3	12.43	10.84	12.00	13.28	11.95	12.37	16.07	15.12	15.32	13.87	12.70	13.32
4	10.83	9.21	10.05	13.30	12.16	12.49	16.25	15.15	15.69	13.85	13.34	13.58
5	9.71	8.61	9.09	14.96	12.25	12.82	16.42	13.60	14.89	15.18	13.52	14.52
6	10.82	8.72	10.02	16.23	13.31	14.60	14.05	13.29	13.65	16.03	13.63	15.15
7	14.88	10.11	12.53	14.40	12.77	13.49	13.99	13.13	13.52	17.60	15.41	16.58
8	15.62	10.86	12.83	12.94	12.13	12.47	15.60	13.34	14.34	17.70	16.48	17.31
9	12.91	10.64	12.17	13.95	12.19	12.91	15.68	14.90	15.38	17.52	15.81	16.70
10	12.66	11.43	11.90	15.62	13.91	14.94	15.63	15.14	15.40	15.89	14.57	15.26
11	12.09	9.18	10.32	15.66	13.25	14.22	15.45	14.17	14.59	15.99	14.95	15.50
12	10.58	9.10	9.84	14.18	12.13	13.37	15.28	14.18	14.72	16.57	15.87	16.08
13	11.77	10.38	11.21	14.45	11.48	12.58	15.20	13.40	14.11	16.45	16.06	16.25
14	13.24	11.44	12.63	14.07	12.42	13.25	15.36	14.30	14.94	16.59	15.88	16.16
15	13.24	12.00	12.92	13.00	11.66	12.50	17.31	15.66	16.08	18.83	15.98	17.20
16	13.79	12.59	13.11	13.94	10.99	12.42	15.70	13.72	14.69	18.93	15.94	16.96
17	13.62	12.47	13.35	15.02	13.59	14.36	15.28	12.08	14.72	16.55	16.17	16.31
18	12.43	11.40	11.95	15.72	14.64	15.04	15.53	14.97	15.38	16.69	15.96	16.18
19	11.38	10.46	10.79	15.65	14.38	14.99	15.54	12.64	13.45	17.86	16.30	16.81
20	13.40	10.50	12.26	15.29	13.46	14.32	13.12	11.32	11.90	17.57	16.42	16.62
21	13.70	13.18	13.42	16.36	14.76	15.53	12.83	11.22	12.18	16.60	15.51	15.95
22	13.72	10.04	11.75	16.19	14.07	15.00	14.19	12.51	13.05	15.82	15.27	15.62
23	11.64	9.65	10.54	16.34	14.09	15.29	14.17	10.66	12.79	16.03	15.48	15.79
24	12.94	9.51	10.85	17.42	14.85	16.53	14.62	13.21	13.89	15.95	14.35	15.29
25	13.09	10.02	12.02	17.23	16.83	17.04	13.56	12.31	12.93	14.48	13.59	14.09
26	12.05	10.37	10.92	17.17	14.39	15.63	13.76	12.22	12.93	16.27	13.51	15.74
27	12.93	11.52	12.27	15.92	14.37	14.98	13.09	11.50	12.44	16.01	15.07	15.51
28	11.90	11.09	11.42	16.61	15.83	16.10	13.57	12.57	13.06	15.36	14.45	14.84
29	12.86	10.94	11.71	16.24	13.82	14.93	15.64	12.82	14.62	16.23	15.30	15.71
30	13.61	12.77	13.13	14.57	13.33	13.97	15.82	14.14	15.13	15.94	14.84	15.41
31	14.66	12.97	13.82	---	---	---	16.35	14.17	15.17	14.93	14.10	14.36
MONTH	15.62	8.61	11.72	17.42	10.99	14.12	17.31	10.66	14.25	18.93	12.70	15.63

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	18.80	14.95	16.88	13.75	13.25	13.51	13.66	12.43	12.94	21.48	20.10	20.60
2	18.44	17.99	18.21	14.39	13.34	13.76	12.93	12.19	12.55	21.45	18.97	19.62
3	18.51	16.48	17.55	16.14	13.21	14.45	14.23	11.72	12.66	22.21	18.86	19.98
4	16.50	14.74	15.55	15.22	14.60	14.87	12.36	11.64	12.03	21.04	18.92	20.34
5	14.70	13.79	14.27	15.05	14.63	14.84	13.44	12.08	12.91	20.59	17.58	18.63
6	14.61	13.72	14.29	14.90	12.48	14.11	13.57	12.15	13.15	21.23	19.09	20.19
7	14.42	12.76	13.77	12.76	12.07	12.45	13.29	12.85	13.10	21.12	19.56	20.70
8	12.80	12.31	12.51	13.25	12.17	12.73	14.88	13.14	14.15	21.53	19.30	20.66
9	13.40	12.26	12.99	14.73	12.89	14.05	15.87	14.64	15.32	21.39	19.17	20.46
10	13.99	13.11	13.75	14.85	12.24	14.12	15.96	13.32	14.97	21.97	20.13	21.34
11	14.18	13.62	13.95	14.95	14.48	14.77	13.66	12.95	13.39	22.19	19.70	20.76
12	14.22	13.64	14.00	14.87	13.47	13.97	14.75	13.17	13.76	20.93	19.99	20.22
13	16.12	13.99	15.00	14.78	13.65	14.39	16.06	14.74	15.47	21.48	20.80	21.11
14	16.18	14.75	15.15	14.96	14.51	14.71	16.58	15.27	15.93	21.62	21.27	21.45
15	15.12	14.18	14.62	18.03	14.63	16.24	16.27	13.27	14.89	21.71	20.23	21.13
16	14.71	13.34	14.04	18.04	13.93	16.34	14.70	13.72	14.09	21.58	20.07	20.94
17	15.49	13.86	14.87	16.29	13.57	15.66	14.99	13.98	14.56	21.48	20.69	21.04
18	15.41	13.13	14.56	16.62	14.84	15.87	14.93	14.12	14.65	22.36	19.99	21.20
19	16.82	13.14	15.48	19.72	16.37	18.08	14.51	14.01	14.24	20.69	18.97	19.76
20	15.62	14.32	14.88	15.87	13.56	14.37	14.54	13.76	14.32	19.94	17.48	18.86
21	14.99	14.15	14.60	13.94	11.86	13.44	14.80	13.67	14.08	18.58	16.02	17.31
22	14.15	12.11	13.27	13.52	11.65	12.86	14.16	13.68	13.98	17.12	15.57	16.40
23	15.17	12.76	14.14	13.01	12.34	12.72	14.25	13.64	13.96	16.45	14.84	15.44
24	15.19	12.88	13.94	12.78	12.30	12.54	15.62	13.72	14.41	16.62	14.82	15.41
25	15.64	13.73	14.75	12.93	11.39	12.38	15.62	12.78	14.02	17.25	16.67	17.07
26	15.83	14.70	15.26	12.72	12.27	12.52	15.03	12.46	13.51	17.40	15.29	16.92
27	15.26	13.54	14.10	18.09	12.36	15.06	12.99	12.42	12.74	18.43	14.62	16.47
28	14.01	12.98	13.54	14.61	13.39	13.79	15.87	12.29	13.29	18.80	15.38	17.33
29	---	---	---	13.62	12.97	13.28	17.17	12.60	15.20	19.38	16.84	18.05
30	---	---	---	13.79	12.78	13.25	20.42	16.73	19.02	19.60	16.69	18.35
31	---	---	---	13.52	12.50	12.88	---	---	---	16.72	15.19	16.17
MONTH	18.80	12.11	14.64	19.72	11.39	14.13	20.42	11.64	14.11	22.36	14.62	19.16

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.18	14.37	16.62	12.96	11.81	12.36	11.26	9.89	10.37	---	---	---
2	17.96	14.62	16.17	13.20	11.46	12.17	10.61	9.08	9.67	---	---	---
3	17.80	16.95	17.31	11.71	9.93	10.65	---	---	---	---	---	---
4	17.37	15.08	15.74	10.40	8.96	9.56	---	---	---	---	---	---
5	16.29	15.62	15.90	9.84	8.94	9.33	---	---	---	---	---	---
6	17.75	15.59	17.28	9.91	8.93	9.40	---	---	---	---	---	---
7	17.63	16.15	17.06	10.00	8.93	9.47	---	---	---	---	---	---
8	18.27	16.94	17.33	10.83	9.08	10.17	---	---	---	---	---	---
9	16.65	15.78	16.15	12.65	10.99	12.04	---	---	---	---	---	---
10	17.95	15.73	17.13	13.09	11.23	12.45	---	---	---	---	---	---
11	17.80	15.37	16.67	13.16	11.07	11.93	---	---	---	---	---	---
12	15.32	12.06	13.65	12.28	9.91	10.79	---	---	---	---	---	---
13	12.46	11.58	12.02	12.47	10.48	11.48	---	---	---	---	---	---
14	12.35	11.52	11.99	13.27	10.65	11.99	---	---	---	---	---	---
15	12.32	11.53	11.87	12.27	11.27	11.64	---	---	---	---	---	---
16	11.86	11.18	11.54	11.83	11.06	11.38	---	---	---	---	---	---
17	12.86	11.27	12.22	11.70	9.34	10.54	---	---	---	---	---	---
18	13.26	12.86	13.06	10.18	8.60	9.41	---	---	---	---	---	---
19	13.41	12.90	13.19	9.61	8.66	9.08	---	---	---	---	---	---
20	13.53	12.97	13.39	10.32	8.73	9.81	---	---	---	---	---	---
21	13.94	11.48	12.76	12.44	9.38	11.62	---	---	---	---	---	---
22	12.92	11.17	11.64	11.89	9.79	10.99	---	---	---	---	---	---
23	12.97	9.71	11.25	11.08	9.68	10.63	---	---	---	---	---	---
24	12.73	9.56	11.29	11.52	9.94	11.00	---	---	---	12.95	10.83	11.95
25	12.99	11.45	12.19	11.74	9.58	10.21	---	---	---	---	---	---
26	12.44	10.85	11.58	11.69	8.56	9.31	---	---	---	---	---	---
27	12.01	10.19	11.31	10.69	7.95	9.77	---	---	---	---	---	---
28	10.95	9.63	10.33	11.89	9.70	10.90	---	---	---	---	---	---
29	11.80	9.61	10.88	12.07	10.50	11.52	---	---	---	---	---	---
30	12.47	11.78	12.05	10.99	9.59	10.35	---	---	---	---	---	---
31	---	---	---	11.33	10.73	11.03	---	---	---	---	---	---
MONTH	18.27	9.56	13.72	13.27	7.95	10.74	---	---	---	---	---	---

14128910 COLUMBIA RIVER AT WARRENDALE, OR
(National stream quality accounting network station)

LOCATION.--Lat 45°36'45", long 122°01'35", in NE 1/4 SE 1/4 sec.35, T.2 N., R.6 E., Multnomah County, Hydrologic Unit 17080001, on left bank 0.1 mi downstream from Tumult Creek, 1.0 mi west of Warrendale, 5.1 mi downstream from Bonneville Dam, and at mile 141.0.

DRAINAGE AREA.--240,000 mi^2, approximately.

WATER-STAGE RECORDS

PERIOD OF RECORD.--October 1971 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 30.91 ft June 20, 1972; minimum, 4.49 ft July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.79 ft May 15, 18; minimum recorded, 5.39 ft Sept. 6.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	12.43	11.55	11.93
2	---	---	---	---	---	---	12.83	11.93	12.30	12.28	10.62	11.38
3	---	---	---	---	---	---	12.22	11.40	11.80	11.15	10.47	10.89
4	---	---	---	9.84	8.68	9.20	12.16	11.56	11.79	11.08	10.60	10.88
5	---	---	---	10.70	8.88	9.39	12.21	10.94	11.63	11.65	10.56	11.21
6	---	---	---	---	---	---	11.08	10.06	10.46	11.81	11.08	11.52
7	---	---	---	---	---	---	10.46	9.78	10.11	12.88	11.58	12.21
8	---	---	---	---	---	---	10.78	9.60	10.14	13.04	12.43	12.73
9	---	---	---	---	---	---	10.97	10.52	10.78	12.88	11.75	12.23
10	---	---	---	10.98	9.48	10.23	10.94	---	---	11.73	10.78	11.14
11	---	---	---	11.02	9.59	10.27	---	---	---	11.76	10.74	11.17
12	---	---	---	9.83	8.72	9.24	---	---	---	12.52	11.48	11.93
13	---	---	---	10.18	8.21	8.90	---	---	---	12.37	12.03	12.20
14	---	---	---	---	---	---	---	---	---	12.37	11.93	12.14
15	---	---	---	9.94	8.85	---	---	---	---	13.83	11.95	12.61
16	---	---	---	---	---	---	---	---	---	13.91	12.11	12.85
17	---	---	---	---	---	---	---	---	---	12.28	11.94	12.08
18	9.65	8.36	8.83	---	---	---	11.37	10.54	10.92	12.20	11.69	11.90
19	---	---	---	12.12	11.02	11.54	11.34	9.20	9.93	12.68	11.88	12.11
20	---	---	---	11.62	10.40	11.02	9.73	8.17	8.64	12.74	11.86	12.15
21	---	---	---	---	11.46	---	8.95	7.85	8.49	11.87	11.00	11.29
22	---	---	---	---	---	---	---	8.46	---	11.09	10.62	10.95
23	---	6.84	---	---	---	---	---	--	---	11.64	10.97	11.25
24	---	---	---	13.62	12.23	13.09	---	--	---	11.82	10.83	11.29
25	---	---	---	---	---	---	---	---	---	11.10	10.30	10.62
26	---	---	---	---	---	---	---	---	---	12.41	10.18	11.59
27	---	---	---	---	---	---	---	---	---	12.61	11.36	12.02
28	---	---	---	---	---	---	---	---	---	12.46	11.77	12.11
29	---	---	---	---	---	---	---	---	---	12.74	12.26	12.49
30	---	---	---	---	---	---	---	---	---	12.75	12.29	12.51
31	---	---	---	---	---	---	---	---	---	12.38	11.33	11.73
MONTH	---	---	---	---	---	---	---	---	---	13.91	10.18	11.78

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15.56	12.37	13.89	10.51	9.88	10.23	10.06	9.18	9.62	15.90	15.13	15.55
2	15.54	15.05	15.31	10.83	10.00	10.40	9.74	8.97	9.34	15.78	14.61	14.98
3	15.50	14.04	14.90	12.03	10.10	11.14	10.29	8.73	9.41	15.73	14.32	14.97
4	14.08	12.24	13.18	12.16	11.37	11.76	9.10	8.52	8.78	15.86	14.69	15.52
5	12.27	10.97	11.64	12.01	11.46	11.73	9.56	8.57	9.14	14.88	13.32	13.91
6	11.35	10.79	11.00	11.55	9.88	11.11	9.63	8.96	9.35	15.54	14.55	14.96
7	10.85	9.72	10.48	9.84	8.99	9.44	9.47	9.15	9.33	15.78	15.05	15.61
8	9.71	9.00	9.33	9.64	8.94	9.27	10.67	9.15	10.05	16.17	14.70	15.47
9	9.98	8.81	9.41	10.79	9.44	10.17	11.38	10.45	10.95	15.94	15.05	15.53
10	10.26	9.59	9.93	11.06	9.35	10.31	11.47	10.22	11.13	16.65	15.45	16.20
11	10.74	9.69	10.34	11.22	10.64	10.96	10.21	9.75	10.01	16.43	15.40	15.91
12	10.77	9.93	10.33	11.09	10.36	10.74	10.58	9.75	10.09	15.72	15.33	15.51
13	12.34	10.30	11.13	11.59	10.52	11.10	11.81	10.55	11.24	16.32	15.58	16.05
14	12.23	11.22	11.61	11.90	11.13	11.48	12.31	11.66	11.91	16.63	16.30	16.48
15	11.58	10.90	11.25	13.68	11.50	12.42	12.24	10.39	11.38	16.79	15.75	16.44
16	11.50	10.35	10.95	13.84	11.83	12.96	11.02	10.11	10.58	16.48	15.47	16.03
17	11.65	10.74	11.24	12.62	11.31	12.16	11.44	10.35	10.88	16.26	15.90	16.12
18	11.81	10.37	11.28	12.71	11.71	12.32	11.47	10.73	11.01	16.79	15.62	16.28
19	12.25	10.33	11.37	14.51	12.64	13.73	10.77	10.31	10.54	15.65	14.55	15.06
20	12.04	10.92	11.30	13.49	10.55	11.62	10.74	10.16	10.46	14.93	13.37	14.29
21	11.11	10.54	10.89	10.83	9.47	10.42	10.54	10.06	10.24	13.45	12.06	12.86
22	10.51	9.37	9.98	10.25	9.12	9.70	10.35	9.84	10.15	12.68	11.60	12.17
23	11.05	9.24	10.12	9.88	9.24	9.59	10.41	9.77	10.10	11.57	11.01	11.28
24	10.91	9.85	10.35	9.57	9.05	9.28	11.13	10.03	10.44	11.63	11.05	11.24
25	11.42	10.04	10.67	9.57	8.74	9.10	10.89	9.50	10.27	12.62	11.63	12.39
26	11.81	10.72	11.18	9.68	8.90	9.24	10.32	9.16	9.86	12.97	11.83	12.62
27	11.56	10.28	10.67	12.59	9.02	10.73	9.86	9.24	9.51	12.91	11.16	12.01
28	10.81	9.68	10.22	11.23	9.92	10.36	10.73	8.99	9.73	13.67	11.74	12.70
29	---	---	---	9.99	9.32	9.57	12.35	9.40	10.94	14.14	12.70	13.31
30	---	---	---	10.11	9.40	9.74	15.23	12.27	13.83	14.44	12.98	13.74
31	---	---	---	9.92	9.19	9.56	---	---	---	13.54	11.75	12.34
MONTH	15.56	8.81	11.21	14.51	8.74	10.72	15.23	8.52	10.34	16.79	11.01	14.44

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.94	10.97	12.08	9.16	8.39	8.85	8.29	6.81	7.45	8.50	6.98	7.60
2	12.31	11.24	11.74	9.07	8.15	8.66	7.84	6.17	6.92	7.56	5.95	6.66
3	12.67	12.22	12.40	8.61	7.17	7.67	7.40	6.18	6.77	7.05	6.14	6.57
4	12.59	10.95	11.61	7.90	6.11	6.91	7.73	6.49	7.13	8.16	6.29	7.63
5	11.71	11.20	11.47	7.41	6.05	6.69	7.81	6.42	6.95	7.79	5.53	6.55
6	12.84	11.23	12.40	7.55	6.06	6.75	8.47	6.54	7.75	7.28	5.39	6.39
7	12.75	12.15	12.50	7.68	6.19	6.89	9.62	8.39	8.91	7.55	5.64	6.62
8	13.04	12.44	12.73	8.08	6.37	7.43	9.41	7.80	8.48	8.21	6.46	7.36
9	12.60	11.58	12.02	9.25	7.37	8.65	9.10	7.10	8.01	8.72	7.48	8.07
10	13.14	11.48	12.42	9.60	8.25	9.17	8.50	6.33	7.51	8.93	7.75	8.24
11	13.06	11.89	12.56	9.42	8.72	9.04	9.67	6.96	8.30	8.78	7.45	8.06
12	11.80	9.20	10.56	8.88	7.76	8.25	9.62	8.16	9.02	9.11	7.73	8.20
13	9.76	8.46	9.05	9.13	7.63	8.43	9.05	6.99	7.94	9.10	7.79	8.37
14	9.51	8.44	8.90	9.43	8.03	8.87	8.16	6.63	7.22	8.70	7.96	8.35
15	9.34	8.32	8.77	9.38	8.21	8.70	8.12	6.56	7.21	8.54	7.42	7.80
16	8.82	7.95	8.39	8.96	7.80	8.30	7.78	5.69	6.59	8.38	7.25	7.81
17	9.06	8.00	8.60	8.76	6.68	7.78	6.96	5.42	6.04	8.13	7.07	7.59
18	9.43	9.02	9.25	7.89	5.98	6.91	6.90	5.86	6.68	8.09	6.46	7.14
19	9.61	9.05	9.36	7.29	5.98	6.57	7.46	6.50	6.87	7.04	6.04	6.61
20	9.91	9.11	9.55	7.35	6.17	6.99	7.39	6.33	6.81	7.10	6.14	6.59
21	10.20	8.35	9.33	8.77	6.80	8.20	7.88	6.52	7.37	7.12	5.73	6.54
22	9.10	7.87	8.42	8.94	7.50	8.12	8.03	7.50	7.77	7.91	6.20	6.97
23	9.36	7.00	8.18	8.22	7.20	7.74	8.17	6.34	7.27	9.02	7.48	8.16
24	8.76	6.75	7.84	8.63	7.45	8.05	7.70	6.53	7.09	9.40	8.02	8.75
25	9.44	8.25	8.71	8.14	6.88	7.54	7.62	6.59	7.09	8.42	7.35	7.94
26	9.19	7.90	8.40	8.09	6.22	7.14	8.02	6.67	7.19	8.11	6.82	7.42
27	8.87	7.58	8.21	7.87	5.96	7.15	8.50	7.15	7.58	7.86	6.32	7.01
28	8.18	6.79	7.54	8.72	7.15	7.90	8.78	7.60	8.09	8.06	6.28	6.86
29	8.56	6.87	7.75	8.93	7.95	8.44	8.77	6.49	7.66	8.25	7.12	7.52
30	9.10	8.36	8.65	8.33	7.17	7.60	7.79	6.26	6.94	9.13	7.41	7.94
31	---	---	---	8.21	7.41	7.86	8.31	6.38	7.05	---	---	---
MONTH	13.14	6.75	9.98	9.60	5.96	7.85	9.67	5.42	7.41	9.40	5.39	7.44

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURE: October 1975 to current year.

INSTRUMENTATION.--Specific conductance and temperature recorders since October 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 243 microsiemens Mar. 4, 5, 1986; minimum, 95 microsiemens June 26, 27, 1982.
WATER TEMPERATURE: Maximum, 22.5°C Aug. 17, 18, 1977, Aug. 11, 1980; minimum recorded, 0.0°C many days in January and February, 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 215 microsiemens Mar. 2; minimum, 120 microsiemens May 22-26.
WATER TEMPERATURE: Maximum recorded, 22.0°C Aug. 31, Sept. 1; minimum, 3.0°C Jan. 22 to Feb. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB (MG/L AS CACO3)	CALC DIS SOL (MG AS
NOV 19...	1100	156000	199	7.6	10.0	10.3	92	K11	33	81	3	2
MAR 18...	1145	158000	170	7.7	6.0	12	101	K4	<1	79	7	2
MAY 12...	1235	251000	147	7.8	14.5	11.2	110	K5	K7	63	1	1
SEP 09...	1225	109000	157	8.1	22.0	8.0	91	K1	K4	69	5	1

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS IT FIELD (MG/L AS CACO3)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NIT GEN, MONI ORGA TOT (MG AS
NOV 19...	6.3	9.5	1.6	76	95	0	17	4.9	0.2	<0.01	0.4	0
MAR 18...	5.8	6.2	1.3	72	86	0	15	3.6	0.2	0.02	0.3	0
MAY 12...	5.0	6.4	1.2	62	73	0	13	3.6	0.2	0.03	0.1	0
SEP 09...	5.1	5.9	1.3	64	75	0	11	4.0	0.2	0.03	<0.1	<0

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS TOTAL (MG/L AS P)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	TUR- BID- ITY (NTU)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 19...	0.02	0.02	0.06	11	115	121	48400	3.3	12	5050	71
MAR 18...	0.02	0.02	0.05	12	109	111	46500	2.8	12	5120	--
MAY 12...	0.02	0.02	0.02	10	93	94	63000	4.0	33	22400	--
SEP 09...	0.01	0.02	0.02	6.9	92	92	27100	1.3	49	14400	97

K - Results based on colony count outside acceptable range (non-ideal colony count).

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 19...	<10	2	28	<0.5	<1	<1	<3	2	9	6
MAR 18...	50	1	25	<0.5	1	<1	<3	5	45	<5
MAY 12...	10	1	22	<0.5	1	3	<3	2	25	<5
SEP 09...	10	1	25	<0.5	49	2	<3	10	5	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 19...	7	3	0.1	<10	<1	<1	<1	120	<6	15
MAR 18...	8	1	0.2	<10	<1	<1	1	110	<6	14
MAY 12...	6	2	0.1	<10	2	<1	<1	91	<6	8
SEP 09...	<4	2	0.1	<10	<1	<1	<1	105	<6	13

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	175	170	173	182	180	181	193	188	190	191	184	188
2	179	175	177	181	179	181	195	193	194	190	187	188
3	182	179	181	180	178	179	200	196	198	190	189	189
4	183	181	181	179	178	178	206	201	203	190	189	189
5	180	179	180	178	177	178	212	206	209	192	189	190
6	181	179	180	178	176	177	214	212	213	195	191	192
7	185	180	182	176	175	176	214	213	214	198	195	196
8	191	186	188	176	175	175	214	213	213	199	198	198
9	194	190	192	177	175	175	214	212	213	197	196	197
10	196	194	195	182	176	178	213	209	211	196	192	194
11	197	195	196	188	182	186	210	205	208	192	189	191
12	196	195	195	189	187	188	205	198	202	189	185	188
13	195	193	194	190	188	189	198	193	196	185	183	184
14	193	191	192	189	188	188	196	193	194	188	184	186
15	192	189	190	189	187	188	199	195	198	193	188	191
16	189	187	188	---	---	---	201	199	200	194	192	193
17	189	188	189	---	---	---	204	201	202	195	193	194
18	189	186	187	---	---	---	207	204	205	196	195	195
19	186	182	184	195	193	194	207	206	206	195	191	193
20	181	178	180	193	189	191	206	204	205	191	186	189
21	180	178	179	190	187	187	205	202	204	186	182	184
22	184	179	182	186	183	184	203	198	201	182	181	181
23	185	183	184	184	182	183	199	193	195	185	181	183
24	185	183	185	185	183	184	193	190	191	190	186	188
25	184	183	184	188	184	187	190	188	189	190	189	190
26	184	181	182	190	188	189	188	185	187	189	185	188
27	183	181	181	188	184	186	186	182	184	186	185	186
28	184	181	183	187	186	186	183	180	181	185	181	183
29	185	184	184	188	185	186	180	179	179	181	178	179
30	185	183	183	189	187	188	181	179	180	180	178	179
31	182	181	181	---	---	---	189	181	184	181	172	178
MONTH	197	170	185	---	---	---	214	179	198	199	172	189

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	170	162	166	211	209	210	213	212	212	172	167	169
2	171	165	168	215	211	212	211	209	211	178	172	175
3	174	166	171	214	210	213	211	209	209	181	178	180
4	178	174	175	212	211	212	210	208	209	181	177	179
5	180	177	178	211	207	210	210	207	208	178	176	177
6	181	178	179	207	201	204	205	203	204	178	176	177
7	181	179	180	200	198	199	204	201	203	176	171	174
8	182	181	181	197	196	197	204	202	203	171	165	168
9	181	179	180	197	195	196	202	195	200	164	161	163
10	182	180	181	195	191	193	195	189	192	161	159	160
11	183	181	182	190	187	189	190	179	184	158	154	156
12	187	184	185	187	184	185	181	174	177	154	151	152
13	187	185	186	182	179	181	173	171	173	150	143	147
14	187	185	186	178	175	176	176	171	172	143	138	141
15	188	186	188	175	172	173	176	170	173	139	133	135
16	189	187	188	178	173	176	178	169	174	132	128	131
17	192	188	190	180	177	178	177	170	175	129	128	129
18	194	192	192	180	179	179	173	168	172	128	125	127
19	195	193	194	182	178	180	172	169	170	126	125	125
20	197	195	195	187	182	185	170	167	169	125	122	124
21	198	196	197	190	186	189	170	168	169	123	121	122
22	199	194	198	193	189	191	169	167	168	123	120	122
23	201	198	200	193	192	193	169	165	167	123	120	121
24	207	202	204	195	192	194	167	163	165	122	120	121
25	208	206	207	197	194	195	166	162	164	122	120	121
26	208	206	207	212	196	203	165	163	164	124	120	122
27	209	206	207	213	210	212	166	163	164	124	122	123
28	210	208	209	213	212	212	171	163	165	125	123	124
29	---	---	---	212	210	211	167	164	165	127	125	126
30	---	---	---	213	210	211	168	164	166	127	125	126
31	---	---	---	214	211	213	---	---	---	127	125	126
MONTH	210	162	188	215	172	196	213	162	182	181	120	143

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	127	126	126	133	131	132	135	133	134	152	150	151
2	128	126	127	134	132	133	142	135	136	153	151	152
3	129	127	128	135	131	133	137	136	136	154	152	152
4	130	129	129	133	131	132	137	135	136	154	152	153
5	133	130	131	134	132	133	143	135	137	158	154	154
6	136	133	134	134	132	133	137	135	136	156	155	155
7	137	135	136	134	133	134	138	136	137	157	156	156
8	139	137	138	134	130	132	140	137	139	157	156	157
9	140	138	139	132	130	131	143	140	141	158	156	157
10	140	138	140	136	131	132	143	142	142	158	157	157
11	140	139	140	133	131	133	146	142	142	158	157	157
12	142	139	140	135	131	133	154	143	144	173	157	158
13	141	139	140	139	131	132	147	145	146	165	157	159
14	139	138	139	133	132	132	154	147	148	159	158	159
15	138	136	137	133	131	132	149	148	148	160	159	159
16	137	136	136	133	132	132	156	149	150	161	159	160
17	135	133	135	135	133	133	155	149	150	161	160	160
18	134	132	134	136	132	133	158	149	150	161	159	160
19	133	132	133	133	132	132	151	147	148	160	159	160
20	133	131	132	133	132	132	150	147	148	160	158	159
21	131	130	131	134	132	133	148	147	148	162	158	159
22	131	130	130	134	133	133	149	148	149	175	160	162
23	132	130	130	139	133	134	150	149	149	163	161	162
24	132	130	130	136	134	135	175	149	150	164	162	162
25	131	130	130	136	135	136	151	149	150	165	163	164
26	135	130	132	136	135	136	151	148	149	188	165	167
27	139	134	136	137	136	136	150	148	149	169	167	168
28	136	133	134	137	135	136	150	149	149	172	168	170
29	134	132	133	137	135	136	167	149	151	175	171	173
30	133	131	132	137	135	136	151	150	150	177	174	176
31	---	---	---	139	133	135	151	150	151	---	---	---
MONTH	142	126	134	139	130	133	175	133	145	188	150	160

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	16.5	16.5	13.5	13.5	13.5	8.5	8.5	8.5	5.5	5.0	5.5
2	16.5	16.5	16.5	13.5	13.5	13.5	8.5	8.5	8.5	5.5	5.5	5.5
3	16.5	16.5	16.5	13.5	13.0	13.5	8.5	8.0	8.0	5.5	5.5	5.5
4	16.5	16.0	16.5	13.5	13.0	13.5	8.0	8.0	8.0	5.5	5.5	5.5
5	16.5	16.5	16.5	13.5	13.0	13.0	8.0	8.0	8.0	5.5	5.5	5.5
6	16.5	16.5	16.5	13.0	13.0	13.0	8.0	8.0	8.0	5.5	5.5	5.5
7	16.5	16.5	16.5	13.0	12.5	13.0	8.0	8.0	8.0	5.5	5.5	5.5
8	16.5	16.5	16.5	12.5	12.5	12.5	8.0	8.0	8.0	5.5	5.0	5.5
9	16.5	16.5	16.5	12.5	12.0	12.0	8.0	7.5	8.0	5.0	5.0	5.0
10	16.5	16.0	16.5	12.0	11.5	11.5	7.5	7.0	7.5	5.0	5.0	5.0
11	16.0	15.5	15.5	12.0	11.5	11.5	7.0	7.0	7.0	5.0	5.0	5.0
12	15.5	15.0	15.5	11.5	11.0	11.5	7.0	7.0	7.0	5.0	5.0	5.0
13	15.5	15.5	15.5	11.0	11.0	11.0	7.0	6.5	7.0	5.0	5.0	5.0
14	15.5	15.5	15.5	11.5	11.0	11.0	6.5	6.5	6.5	5.0	5.0	5.0
15	15.5	15.0	15.0	11.0	11.0	11.0	6.5	6.5	6.5	5.0	4.5	4.5
16	15.0	15.0	15.0	---	---	---	6.5	6.0	6.0	4.5	4.5	4.5
17	15.5	15.0	15.0	---	---	---	6.0	6.0	6.0	4.5	4.0	4.0
18	15.0	15.0	15.0	---	---	---	6.0	6.0	6.0	4.0	4.0	4.0
19	15.0	15.0	15.0	10.5	10.5	10.5	6.0	5.5	6.0	4.0	4.0	4.0
20	15.0	14.5	14.5	10.5	10.0	10.5	6.0	5.5	5.5	4.0	4.0	4.0
21	15.0	14.5	14.5	10.0	10.0	10.0	5.5	5.5	5.5	4.0	3.5	3.5
22	14.5	14.5	14.5	10.0	10.0	10.0	5.5	5.5	5.5	3.5	3.0	3.5
23	14.5	14.5	14.5	10.0	10.0	10.0	6.0	5.5	5.5	3.0	3.0	3.0
24	14.5	14.5	14.5	10.0	9.5	10.0	6.0	5.5	6.0	3.0	3.0	3.0
25	14.5	14.5	14.5	9.5	9.0	9.5	6.0	5.5	5.5	3.0	3.0	3.0
26	14.5	14.5	14.5	9.0	9.0	9.0	5.5	5.5	5.5	3.0	3.0	3.0
27	14.5	14.5	14.5	9.0	9.0	9.0	6.0	5.5	6.0	3.0	3.0	3.0
28	14.5	14.0	14.5	9.0	9.0	9.0	5.5	5.5	5.5	3.0	3.0	3.0
29	14.0	14.0	14.0	9.0	9.0	9.0	5.5	5.5	5.5	3.0	3.0	3.0
30	14.0	13.5	14.0	9.0	8.5	9.0	5.5	5.5	5.5	3.0	3.0	3.0
31	14.0	13.5	13.5	---	---	---	5.5	5.5	5.5	3.0	3.0	3.0
MONTH	16.5	13.5	15.5	---	---	---	8.5	5.5	6.5	5.5	3.0	4.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	3.0	3.0	5.0	4.5	5.0	8.5	8.0	8.0	12.0	12.0	12.0
2	3.0	3.0	3.0	5.0	5.0	5.0	8.5	8.5	8.5	12.0	12.0	12.0
3	3.0	3.0	3.0	5.0	5.0	5.0	8.5	8.5	8.5	12.5	12.0	12.0
4	3.5	3.0	3.0	5.5	5.0	5.5	8.5	8.5	8.5	13.0	12.5	12.5
5	3.5	3.0	3.5	5.5	5.0	5.5	9.0	8.5	8.5	13.5	13.0	13.0
6	3.5	3.0	3.5	5.0	5.0	5.0	9.0	8.5	9.0	14.0	13.5	13.5
7	3.5	3.5	3.5	5.5	5.0	5.0	9.0	8.5	9.0	14.0	13.5	14.0
8	3.5	3.5	3.5	5.5	5.0	5.0	9.0	9.0	9.0	14.5	14.0	14.0
9	3.5	3.5	3.5	5.5	5.0	5.5	9.0	9.0	9.0	14.5	14.0	14.5
10	4.0	3.5	3.5	5.5	5.0	5.5	9.0	9.0	9.0	14.5	14.0	14.5
11	4.0	3.5	4.0	5.5	5.5	5.5	9.0	9.0	9.0	14.5	14.0	14.5
12	4.0	4.0	4.0	5.5	5.5	5.5	9.5	9.0	9.0	14.5	14.5	14.5
13	4.0	4.0	4.0	5.5	5.5	5.5	9.5	9.0	9.5	14.5	14.5	14.5
14	4.5	4.0	4.5	5.5	5.5	5.5	10.0	9.5	9.5	14.5	14.5	14.5
15	4.5	4.5	4.5	6.0	5.5	6.0	10.0	10.0	10.0	14.5	14.5	14.5
16	4.5	4.5	4.5	6.0	5.5	6.0	10.5	10.0	10.5	15.0	14.5	14.5
17	4.5	4.5	4.5	6.5	6.0	6.0	10.5	10.5	10.5	14.5	14.5	14.5
18	4.5	4.5	4.5	6.5	6.0	6.5	10.5	10.0	10.0	14.5	14.0	14.0
19	4.5	4.5	4.5	6.5	6.5	6.5	10.0	10.0	10.0	14.0	14.0	14.0
20	5.0	4.5	4.5	7.0	6.5	7.0	10.5	10.0	10.0	14.5	14.0	14.0
21	5.0	4.5	5.0	7.0	6.5	7.0	10.5	10.0	10.5	14.5	14.0	14.0
22	5.0	5.0	5.0	7.0	7.0	7.0	11.0	10.5	10.5	14.5	14.0	14.0
23	5.0	5.0	5.0	7.0	7.0	7.0	11.0	11.0	11.0	14.5	14.5	14.5
24	5.0	4.5	5.0	7.5	7.0	7.0	11.0	11.0	11.0	14.5	14.5	14.5
25	5.0	4.5	5.0	7.5	7.0	7.5	11.0	11.0	11.0	14.5	14.0	14.5
26	4.5	4.5	4.5	7.5	7.5	7.5	11.0	11.0	11.0	14.0	14.0	14.0
27	4.5	4.5	4.5	7.5	7.5	7.5	11.5	11.0	11.0	14.0	14.0	14.0
28	5.0	4.5	4.5	8.0	7.5	7.5	11.5	11.5	11.5	14.0	14.0	14.0
29	---	---	---	7.5	7.5	7.5	12.0	11.5	12.0	15.0	14.0	14.5
30	---	---	---	8.0	7.5	7.5	12.5	12.0	12.0	15.0	14.5	14.5
31	---	---	---	8.0	7.5	8.0	---	---	---	14.5	14.5	14.5
MONTH	5.0	3.0	4.0	8.0	4.5	6.0	12.5	8.0	10.0	15.0	12.0	14.0

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	14.0	14.5	20.5	20.0	20.0	20.0	19.5	20.0	22.0	21.5	21.5
2	14.5	14.0	14.5	20.0	19.5	20.0	20.5	20.0	20.0	21.5	21.0	21.0
3	14.5	14.5	14.5	20.0	19.5	19.5	20.5	20.5	20.5	21.0	21.0	21.0
4	15.0	14.5	15.0	19.5	19.0	19.5	21.0	20.5	20.5	21.0	21.0	21.0
5	15.0	15.0	15.0	19.0	19.0	19.0	21.0	20.5	20.5	21.0	21.0	21.0
6	15.5	15.0	15.5	19.0	18.5	19.0	20.5	20.5	20.5	21.5	21.0	21.0
7	16.0	15.5	15.5	19.0	18.5	19.0	21.0	20.5	20.5	21.0	21.0	21.0
8	15.5	15.5	15.5	19.0	19.0	19.0	21.0	20.5	21.0	21.0	20.5	21.0
9	15.5	15.5	15.5	19.0	19.0	19.0	21.0	21.0	21.0	21.0	21.0	21.0
10	16.0	15.5	16.0	19.5	19.0	19.0	21.0	20.5	21.0	21.0	21.0	21.0
11	16.5	16.0	16.0	20.0	19.5	19.5	21.0	20.5	20.5	21.0	20.5	21.0
12	16.5	16.0	16.5	20.5	20.0	20.0	21.0	20.5	20.5	20.5	20.0	20.5
13	17.0	16.5	16.5	21.0	20.5	20.5	21.0	20.5	20.5	20.0	20.0	20.0
14	17.5	17.0	17.0	21.0	20.5	21.0	20.5	20.0	20.5	20.0	20.0	20.0
15	17.5	17.0	17.0	21.0	20.5	21.0	20.0	20.0	20.0	20.0	19.5	19.5
16	17.0	16.5	17.0	20.5	20.0	20.0	20.0	20.0	20.0	19.5	19.5	19.5
17	17.0	16.5	16.5	20.0	19.5	20.0	20.5	20.0	20.0	19.5	19.5	19.5
18	17.0	16.5	17.0	19.5	19.5	19.5	20.5	20.0	20.5	19.5	19.5	19.5
19	17.0	16.5	17.0	19.5	19.5	19.5	21.0	20.5	20.5	20.0	19.5	19.5
20	17.5	17.0	17.0	19.5	19.0	19.5	20.5	20.5	20.5	20.0	19.5	19.5
21	17.5	17.0	17.5	20.0	19.5	19.5	20.5	20.0	20.5	20.0	19.5	20.0
22	17.5	17.0	17.5	20.0	20.0	20.0	20.5	20.5	20.5	20.0	19.5	20.0
23	17.5	17.5	17.5	20.0	19.5	20.0	21.0	20.5	21.0	20.0	19.5	20.0
24	18.0	17.5	17.5	20.5	20.0	20.5	21.0	20.5	21.0	20.0	19.5	20.0
25	18.0	17.5	18.0	20.5	20.0	20.5	21.0	20.5	20.5	19.5	19.0	19.5
26	19.0	18.0	18.5	20.5	20.0	20.0	21.5	20.5	21.0	19.0	18.5	19.0
27	19.5	19.0	19.0	20.5	20.0	20.0	21.5	21.5	21.5	19.0	18.5	18.5
28	19.5	19.0	19.5	20.5	20.0	20.5	21.5	21.5	21.5	18.5	18.0	18.5
29	20.0	19.5	20.0	20.5	20.0	20.5	21.5	21.5	21.5	18.0	18.0	18.0
30	20.5	20.0	20.0	20.5	20.0	20.0	21.5	21.5	21.5	18.5	18.0	18.0
31	---	---	---	20.0	20.0	20.0	22.0	21.5	21.5	---	---	---
MONTH	20.5	14.0	17.0	21.0	18.5	20.0	22.0	19.5	20.5	22.0	18.0	20.0

14131400 ZIGZAG RIVER NEAR RHODODENDRON, OR

LOCATION.--Lat 45°18′32", long 121°51′31", in NE 1/4 SE 1/4 sec.18, T.3 S., R.8 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank at bridge, 0.5 mi upstream from Devil Canyon Creek, 1.2 mi downstream from Lady Creek, and 2.8 mi southeast of Rhododendron.

DRAINAGE AREA.--14.8 mi^2.

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,191.52 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation. Small diversion for private water supply from Lady Creek.

AVERAGE DISCHARGE.--6 years (water years 1982-87), 80.0 ft^3/s, 73.41 in/yr, 57,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.---Maximum discharge, 438 ft^3/s Jan. 6, 1983, gage height, 5.35 ft; minimum discharge, 34 ft^3/s Sept. 29, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 25, 1980, reached a stage of 6.0 ft, discharge, 863 ft^3/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0800	*211	*4.85				

Minimum discharge, 34 ft^3/s Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	56	103	75	166	69	72	97	79	57	47	45
2	54	52	95	70	119	76	75	93	73	56	48	45
3	52	50	91	74	100	81	77	91	73	56	48	44
4	51	50	87	70	91	87	75	90	75	56	48	44
5	51	56	86	68	86	89	72	92	74	57	48	44
6	51	73	82	67	85	85	73	101	71	55	48	45
7	49	70	78	63	83	79	72	107	71	54	47	45
8	49	65	77	63	81	76	86	108	72	54	48	46
9	49	63	75	62	81	75	76	105	69	54	47	45
10	48	60	73	62	81	74	82	102	68	57	48	45
11	48	61	72	62	83	73	83	99	67	54	47	44
12	48	61	71	62	80	85	79	119	67	52	47	45
13	48	61	73	62	91	86	79	100	67	53	50	44
14	47	64	72	62	84	83	78	95	67	53	51	45
15	47	62	70	59	81	79	79	93	66	52	49	46
16	47	75	68	59	79	77	80	90	64	51	48	44
17	50	100	67	59	83	84	88	87	63	54	47	42
18	50	100	66	59	78	80	82	85	62	62	47	43
19	48	110	65	57	76	77	78	82	62	55	45	42
20	47	143	63	55	75	75	77	79	62	57	45	42
21	47	137	63	56	73	74	80	77	61	59	45	42
22	47	119	66	56	73	70	83	76	61	60	44	42
23	46	138	70	56	72	70	85	76	60	56	44	47
24	46	128	67	61	70	69	82	74	59	56	45	45
25	47	104	65	70	68	69	81	73	59	56	44	49
26	52	119	71	82	66	69	85	73	59	52	44	56
27	66	177	67	85	65	67	97	73	59	48	45	44
28	52	165	64	81	64	67	104	72	58	46	45	46
29	51	132	67	74	---	66	100	71	59	46	45	40
30	54	113	66	70	---	66	103	77	59	48	45	41
31	69	---	65	111	---	67	---	84	---	48	45	---
TOTAL	1568	2764	2265	2072	2334	2344	2463	2741	1966	1674	1444	1337
MEAN	50.6	92.1	73.1	66.8	83.4	75.6	82.1	88.4	65.5	54.0	46.6	44.6
MAX	69	177	103	111	166	89	104	119	79	62	51	56
MIN	46	50	63	55	64	66	72	71	58	46	44	40
AC-FT	3110	5480	4490	4110	4630	4650	4890	5440	3900	3320	2860	2650
CFSM	3.42	6.23	4.94	4.52	5.63	5.11	5.55	5.97	4.43	3.65	3.15	3.01
IN.	3.94	6.95	5.69	5.21	5.87	5.89	6.19	6.89	4.94	4.21	3.63	3.36

CAL YR 1986 TOTAL 28458 MEAN 78.0 MAX 349 MIN 46 AC-FT 56450 CFSM 5.27 IN. 71.53
WTR YR 1987 TOTAL 24972 MEAN 68.4 MAX 177 MIN 40 AC-FT 49530 CFSM 4.62 IN. 62.77

14134000 SALMON RIVER NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°15′55″, long 121°43′00″, in SE 1/4 NW 1/4 sec.31, T.3 S., R.9 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank near lower end of Red Top Meadows and 3.0 mi southeast of Government Camp.

DRAINAGE AREA.--8.00 mi^2.

PERIOD OF RECORD.--May 1910 to May 1912, April 1926 to current year. Published as "near Rowe" 1910-12.

REVISED RECORDS.--WSP 1398: 1911-12, 1926-27, 1933(M), 1949. WDR OR-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,445.53 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1910, nonrecording gage at site 0.2 mi upstream at different datum. Nov. 21, 1910, to May 31, 1912, and Apr. 21, 1926, to Sept. 30, 1933, at site 75 ft upstream from former site at different datums. Oct. 1, 1933, to Sept. 30, 1960, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 16-18. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--62 years (water years 1911, 1927-87), 44.4 ft^3/s, 75.37 in/yr, 32,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft^3/s Dec. 23, 1964, gage height, 4.75 ft, from rating curve extended above 310 ft^3/s, on basis of slope-area measurement of peak flow; minimum discharge, 10 ft^3/s Nov. 27, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0630	*151	*1.92	No other peak greater than base discharge.			

Minimum discharge, 15 ft^3/s Sept. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	24	48	27	74	29	46	71	53	33	24	21
2	24	22	40	26	45	33	52	71	46	31	23	20
3	23	20	38	27	39	37	52	71	44	30	25	19
4	23	20	35	26	38	41	51	67	44	30	25	19
5	23	28	37	25	36	47	46	68	43	31	23	20
6	21	47	35	25	35	44	47	73	41	31	23	20
7	20	32	33	24	36	38	49	76	41	28	26	20
8	20	28	31	23	39	38	66	75	41	30	24	20
9	21	27	31	23	37	38	51	70	41	30	25	19
10	19	25	31	23	39	40	58	66	39	32	24	19
11	19	29	31	23	43	42	57	65	38	30	21	20
12	19	29	30	24	41	60	52	86	38	30	21	20
13	20	28	30	24	56	60	52	67	38	28	25	20
14	19	30	31	24	48	54	54	64	38	29	24	19
15	20	26	29	23	46	46	62	60	38	28	23	20
16	20	31	27	23	40	43	63	56	37	26	20	18
17	21	37	26	22	38	52	74	55	35	27	20	18
18	20	51	26	21	35	49	60	51	33	34	21	18
19	20	67	27	21	34	46	51	51	34	29	19	18
20	19	90	25	23	34	44	50	49	34	29	18	18
21	19	72	26	21	33	42	55	47	36	32	19	18
22	20	60	28	21	33	40	59	47	35	31	18	18
23	19	87	34	21	34	40	63	48	33	29	20	18
24	18	86	30	22	30	38	62	47	32	31	18	17
25	20	58	28	24	29	38	60	47	33	28	18	19
26	25	71	30	31	28	38	62	46	34	28	18	24
27	29	107	28	33	29	35	72	47	33	27	18	18
28	22	74	27	29	28	35	78	47	33	27	17	18
29	23	57	29	25	---	35	75	44	33	27	17	18
30	27	51	26	24	---	36	80	49	33	26	17	18
31	34	---	26	44	---	40	---	59	---	27	18	---
TOTAL	673	1414	953	772	1077	1298	1759	1840	1131	909	652	572
MEAN	21.7	47.1	30.7	24.9	38.5	41.9	58.6	59.4	37.7	29.3	21.0	19.1
MAX	34	107	48	44	74	60	80	86	53	34	26	24
MIN	18	20	25	21	28	29	46	44	32	26	17	17
AC-FT	1330	2800	1890	1530	2140	2570	3490	3650	2240	1800	1290	1130
CFSM	2.71	5.89	3.84	3.11	4.81	5.23	7.33	7.42	4.71	3.67	2.63	2.38
IN.	3.13	6.58	4.43	3.59	5.01	6.04	8.18	8.56	5.26	4.23	3.03	2.66

CAL YR 1986 TOTAL 15513 MEAN 42.5 MAX 269 MIN 18 AC-FT 30770 CFSM 5.31 IN. 72.14
WTR YR 1987 TOTAL 13050 MEAN 35.8 MAX 107 MIN 17 AC-FT 25880 CFSM 4.47 IN. 60.68

14137000 SANDY RIVER NEAR MARMOT, OR

LOCATION.--Lat 45°23'30", long 122°07'40", in SE 1/4 sec.13, T.2 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, on right bank 0.7 mi southwest of Marmot, 0.8 mi upstream from Sandy River Dam of Portland General Electric Co., 6.6 mi downstream from Salmon River, and at mile 30.9.

DRAINAGE AREA.--262 mi².

PERIOD OF RECORD.--August 1911 to current year. Published as "at Marmot" October 1912 to September 1913. Records for January 1916 to June 1919, published as "below dam, near Marmot," obtained by combining records for Sandy River below dam, near Marmot, with records for Sandy River Canal near Marmot.

REVISED RECORDS.--WSP 594: Drainage area. WSP 1288: 1912(M), 1915, 1922, 1924, 1934(M). WSP 1318: 1932(M).

GAGE.--Water-stage recorder. Elevation of gage is 730 ft, from river-profile map. Aug. 15, 1911, to Dec. 20, 1915, and July 2, 1919, to Oct. 19, 1933, nonrecording gage at site 1.0 mi upstream at different datum. Oct. 20, 1933, to Sept. 30, 1958, water-stage recorder at site 0.6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--76 years, 1,362 ft³/s, 70.60 in/yr, 986,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 ft³/s Dec. 22, 1964, gage height, 17.05 ft, from rating curve extended above 7,000 ft³/s; maximum gage height, 17.10 ft, Feb. 23, 1986; minimum, 195 ft³/s Nov. 27, 28, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 31	2200	*8,110	*11.46	No other peak greater than base discharge.			

Minimum discharge, 246 ft³/s Sept. 18-21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	764	663	1950	1250	6860	1350	968	1230	1150	484	338	295
2	628	551	1590	1360	4090	1760	1040	1190	935	466	331	292
3	551	496	1370	1360	2830	2160	1100	1180	829	441	333	268
4	502	460	1240	1290	2160	2190	1120	1090	808	431	341	259
5	473	458	1180	1150	1760	2010	1080	1050	795	443	338	261
6	452	724	1110	1010	1550	1820	1180	1070	728	426	325	266
7	428	1380	999	914	1450	1530	1160	1120	699	400	327	272
8	402	1290	925	838	1380	1370	1690	1100	692	398	330	276
9	391	1200	858	775	1320	1300	1470	1050	672	404	337	269
10	374	1010	810	749	1260	1260	1640	982	633	435	332	263
11	361	856	779	731	1270	1230	1950	935	608	422	314	269
12	351	821	763	757	1210	1620	1830	1350	609	402	307	281
13	350	769	795	780	1380	1960	1640	1170	610	403	318	282
14	344	815	819	818	1520	2180	1470	1080	607	407	361	282
15	340	775	767	733	1400	1950	1400	1030	609	406	334	319
16	337	1150	724	672	1430	1700	1350	947	565	368	312	279
17	347	3860	687	672	1810	2080	1570	876	524	357	296	258
18	396	2500	665	662	1700	2220	1570	829	501	497	295	254
19	356	3050	657	639	1460	1940	1420	785	497	451	297	254
20	344	3970	631	609	1340	1700	1360	744	508	381	293	258
21	337	4880	622	605	1270	1550	1420	713	541	425	283	260
22	336	3700	645	598	1240	1390	1430	688	527	448	283	270
23	330	3870	791	608	1180	1350	1380	672	481	411	288	271
24	329	3290	769	848	1080	1280	1310	684	465	397	293	276
25	335	2540	754	1270	1010	1210	1220	666	471	392	288	270
26	408	2770	883	2060	944	1190	1160	658	492	372	273	355
27	643	5570	843	2240	902	1100	1200	661	497	372	277	296
28	521	5220	779	2070	862	1040	1320	657	479	365	278	263
29	445	3560	833	1600	---	975	1240	644	480	367	274	258
30	526	2500	961	1380	---	931	1250	737	494	355	277	258
31	706	---	870	3470	---	929	---	1070	---	344	282	---
TOTAL	13407	64698	28069	34518	47668	48275	40938	28658	18506	12670	9555	8234
MEAN	432	2157	905	1113	1702	1557	1365	924	617	409	308	274
MAX	764	5570	1950	3470	6860	2220	1950	1350	1150	497	361	355
MIN	329	458	622	598	862	929	968	644	465	344	273	254
AC-FT	26590	128300	55670	68470	94550	95750	81200	56840	36710	25130	18950	16330
CFSM	1.65	8.23	3.46	4.25	6.50	5.94	5.21	3.53	2.35	1.56	1.18	1.05
IN.	1.90	9.19	3.99	4.90	6.77	6.85	5.81	4.07	2.63	1.80	1.36	1.17

CAL YR 1986 TOTAL 460338 MEAN 1261 MAX 25000 MIN 262 AC-FT 913100 CFSM 4.81 IN. 65.36
WTR YR 1987 TOTAL 355196 MEAN 973 MAX 6860 MIN 254 AC-FT 704500 CFSM 3.71 IN. 50.43

14138800 BLAZED ALDER CREEK NEAR RHODODENDRON, OR

LOCATION.--Lat 45°27'10", long 121°53'25", in NW 1/4 SE 1/4 sec.25, T.1 S., R.7 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 600 ft below the confluence of Bedrock and Hickman Creeks and 8.6 mi north of Rhododendron.

DRAINAGE AREA.--8.17 mi^2.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,540 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 10-13, Jan. 13-23. Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--24 years, 58.8 ft^3/s, 97.74 in/yr, 42,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft^3/s Dec. 22, 1964, gage height, 8.25 ft, from rating curve extended above 330 ft^3/s, on basis of slope-area measurement of peak flow; minimum discharge, 1.5 ft^3/s Sept. 5-10, 28, 29, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1030	521	3.55	Feb. 1	0730	*613	*3.83

Minimum discharge, 1.8 ft^3/s Sept. 9-12, 23-25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	54	65	112	438	93	29	41	60	5.1	3.8	1.9
2	32	35	49	84	164	176	38	57	42	4.8	3.6	2.0
3	24	26	38	93	109	178	45	58	31	4.7	3.4	2.1
4	19	21	31	76	77	156	44	46	24	4.7	3.1	1.9
5	16	25	33	58	63	124	44	39	21	7.0	2.9	1.9
6	14	49	30	43	59	106	63	35	19	5.7	2.9	1.9
7	12	95	24	33	58	78	62	33	17	5.0	2.9	1.9
8	11	76	21	27	59	62	112	29	16	4.8	2.9	1.9
9	10	63	19	22	57	58	78	25	14	4.8	2.7	1.9
10	9.8	46	16	20	53	56	102	22	13	5.1	2.7	1.8
11	9.0	36	15	19	61	61	125	19	12	4.7	2.7	1.8
12	8.6	32	16	22	54	140	103	48	12	4.2	2.7	1.9
13	8.2	31	24	21	89	160	73	32	11	3.9	2.9	1.9
14	7.8	36	30	20	106	164	70	27	10	3.8	5.6	2.5
15	7.4	31	27	18	87	117	67	24	10	3.6	4.1	5.9
16	7.0	123	22	16	101	86	63	21	9.8	3.6	3.6	3.6
17	7.6	276	20	15	113	136	77	19	9.3	3.9	3.1	2.6
18	9.0	169	18	14	78	119	68	17	8.8	14	2.9	2.3
19	7.5	201	17	13	60	83	59	17	8.3	11	2.7	2.1
20	6.8	250	16	12	49	66	51	15	8.2	9.0	2.7	2.1
21	6.3	270	16	11	43	57	48	14	12	9.0	2.5	1.9
22	6.2	284	19	10	39	46	48	13	9.9	8.5	2.5	1.9
23	5.8	298	54	14	33	43	48	12	8.8	6.8	2.3	1.9
24	5.7	161	47	44	27	40	44	12	7.8	6.1	2.3	1.8
25	6.0	110	42	87	24	37	37	11	7.2	5.4	2.3	2.3
26	14	186	61	156	21	38	34	11	6.5	5.1	2.3	7.3
27	41	425	45	146	20	33	39	11	6.1	4.8	2.1	3.5
28	23	229	36	126	19	29	45	12	5.8	4.5	2.1	2.7
29	19	133	53	94	---	25	37	11	5.7	4.2	2.1	2.4
30	31	86	68	72	---	23	37	33	5.3	3.9	2.1	2.3
31	85	---	49	255	---	24	---	63	---	3.9	1.9	---
TOTAL	515.7	3857	1021	1753	2161	2614	1790	827	431.5	175.6	88.4	73.9
MEAN	16.6	129	32.9	56.5	77.2	84.3	59.7	26.7	14.4	5.66	2.85	2.46
MAX	85	425	68	255	438	178	125	63	60	14	5.6	7.3
MIN	5.7	21	15	10	19	23	29	11	5.3	3.6	1.9	1.8
AC-FT	1020	7650	2030	3480	4290	5180	3550	1640	856	348	175	147
CFSM	2.04	15.7	4.03	6.92	9.45	10.3	7.30	3.27	1.76	.69	.35	.30
IN.	2.35	17.56	4.65	7.98	9.84	11.90	8.15	3.77	1.96	.80	.40	.34

CAL YR 1986 TOTAL 19457.7 MEAN 53.3 MAX 1140 MIN 2.1 AC-FT 38590 CFSM 6.52 IN. 88.60
WTR YR 1987 TOTAL 15308.1 MEAN 41.9 MAX 438 MIN 1.8 AC-FT 30360 CFSM 5.13 IN. 69.70

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

LOCATION.--Lat 45°29'50", long 122°00'50", near center of sec.12, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 1.2 mi upstream from North Fork, 7.0 mi southeast of Multnomah Falls, and at mile 14.8.

DRAINAGE AREA.--47.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,080 ft, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Regulation at times since 1915 by Bull Run Lake, usable capacity, 12,270 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--21 years, 416 ft³/s, 117.94 in/yr, 301,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,610 ft³/s Jan. 20, 1972, gage height, 13.22 ft; minimum discharge, 33 ft³/s Sept. 27, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 1	0830	*4,360	*9.70	No other peak greater than base discharge.			

Minimum discharge, 48 ft³/s Aug. 5-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	354	375	453	788	3220	730	215	243	396	65	52	97
2	265	259	357	648	1310	1150	238	334	294	63	50	94
3	213	206	295	710	873	1480	269	363	238	63	50	94
4	177	172	257	605	595	1200	282	298	206	62	49	93
5	153	183	254	460	467	825	271	262	185	79	48	90
6	133	301	250	347	403	681	363	241	168	76	48	88
7	119	718	214	280	371	516	350	225	152	66	49	87
8	108	531	198	237	351	411	639	212	141	64	59	84
9	101	447	177	208	334	377	494	193	131	63	66	82
10	93	342	166	189	307	365	597	176	121	63	71	82
11	86	280	157	175	339	380	781	165	115	62	73	80
12	81	257	155	208	308	761	664	315	108	59	73	79
13	77	234	192	222	465	961	519	258	103	58	79	78
14	73	252	266	209	713	1140	423	237	98	56	99	82
15	71	223	256	177	601	814	383	221	95	55	88	110
16	68	873	221	159	698	590	351	204	93	53	82	90
17	67	1630	197	154	861	844	451	187	89	53	76	77
18	73	1150	180	146	612	791	442	174	86	89	73	73
19	69	1230	170	138	470	596	383	162	82	98	71	70
20	65	1560	156	129	392	507	347	152	80	69	66	67
21	63	1700	150	127	348	458	320	142	111	75	65	65
22	62	1800	188	124	331	388	300	134	108	68	71	63
23	60	1760	469	124	303	366	284	126	90	65	83	61
24	58	1220	415	313	260	340	265	120	82	62	88	59
25	59	821	362	701	231	311	241	116	76	61	90	59
26	95	1340	433	1270	210	317	222	114	74	59	93	94
27	214	2690	350	1140	197	279	217	113	71	57	97	68
28	170	1580	287	931	190	253	232	117	68	56	98	60
29	133	955	344	691	---	230	219	118	68	53	98	56
30	222	612	420	541	---	214	222	223	66	53	98	54
31	572	---	329	1740	---	208	---	428	---	53	98	---
TOTAL	4154	25701	8318	13891	15760	18483	10984	6373	3795	1978	2301	2336
MEAN	134	857	268	448	563	596	366	206	126	63.8	74.2	77.9
MAX	572	2690	469	1740	3220	1480	781	428	396	96	99	110
MIN	58	172	150	124	190	208	215	113	66	53	48	54
AC-FT	8240	50980	16500	27550	31260	36660	21790	12640	7530	3920	4560	4630
CFSM	2.80	17.9	5.60	9.35	11.8	12.4	7.64	4.29	2.64	1.33	1.55	1.63
IN.	3.23	19.96	6.46	10.79	12.24	14.35	8.53	4.95	2.95	1.54	1.79	1.81

CAL YR 1986 TOTAL 137079 MEAN 376 MAX 5990 MIN 40 AC-FT 271900 CFSM 7.84 IN. 106.46
WTR YR 1987 TOTAL 114074 MEAN 313 MAX 3220 MIN 48 AC-FT 226300 CFSM 6.52 IN. 88.59

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1977 to current year.
WATER TEMPERATURE: October 1977 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1977 to September 1986.

INSTRUMENTATION.--Conductivity/temperature recorder since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 38 microsiemens July 19, 1979; minimum recorded, 9 microsiemens Jan. 23, 1982, Feb. 23, 1986.
WATER TEMPERATURE: Maximum, 17.0°C July 19, 20, 1979, June 29, July 14, 1987; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily, 290 mg/L Dec. 2, 1977; minimum, 0 mg/L on many days.
SEDIMENT DISCHARGE: Maximum daily, 5,930 tons Dec. 2, 1977; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 30 microsiemens Sept. 25, 26; minimum, 13 microsiemens Feb. 1.
WATER TEMPERATURE: Maximum, 17.0°C June 29, July 14; minimum, 0.5°C Jan. 16.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20	19	20	23	21	21	24	19	21	23	17	20
2	21	20	21	22	21	21	24	20	22	21	18	20
3	21	21	21	22	22	22	24	20	21	26	18	20
4	22	21	22	25	22	23	27	21	23	20	19	20
5	23	22	22	25	22	23	26	23	25	22	19	21
6	23	23	23	24	22	22	25	22	24	24	22	23
7	24	23	23	22	20	20	26	21	23	23	21	23
8	25	24	24	22	20	20	23	22	23	23	22	22
9	24	24	24	20	20	20	24	22	24	25	23	24
10	25	24	24	21	20	20	28	24	25	26	25	26
11	25	24	25	21	21	21	28	24	25	26	24	25
12	25	25	25	21	21	21	26	23	25	26	22	24
13	25	25	25	21	21	21	28	22	24	24	22	22
14	25	25	25	21	21	21	26	22	24	27	22	25
15	26	25	25	21	21	21	25	23	24	27	23	25
16	26	25	25	21	16	19	26	23	25	24	23	24
17	26	25	26	17	16	17	26	22	24	28	23	26
18	26	26	26	18	17	18	27	23	24	27	25	26
19	27	26	26	18	17	18	26	24	25	27	26	26
20	27	26	26	18	16	17	26	24	25	29	24	27
21	27	26	27	19	17	18	26	23	25	24	23	24
22	27	26	27	18	17	17	25	22	24	24	23	24
23	27	26	27	17	16	17	25	22	22	27	24	25
24	27	26	27	17	16	17	25	20	22	24	20	22
25	27	27	27	18	17	18	24	21	22	22	17	21
26	27	26	27	18	16	17	23	20	21	19	16	17
27	26	24	25	24	16	19	24	19	21	18	16	17
28	26	24	25	21	17	19	25	21	23	20	16	18
29	25	24	25	22	18	20	25	21	23	20	17	18
30	24	22	23	25	18	21	23	20	21	21	17	18
31	22	20	21	---	---	---	25	19	21	23	14	19
MONTH	27	19	24	25	16	20	28	19	23	29	14	22

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	22	13	18	21	16	17	21	21	21	21	20	21
2	22	16	19	16	15	16	21	20	20	21	19	20
3	25	19	21	15	15	15	20	20	20	19	19	19
4	23	20	22	16	15	16	20	19	20	20	19	20
5	23	20	21	17	16	16	20	19	20	21	20	20
6	24	21	22	17	16	17	19	19	19	21	20	21
7	27	22	23	18	17	18	19	19	19	22	21	21
8	27	22	23	19	18	18	19	17	18	22	21	22
9	28	23	24	19	18	19	18	17	18	22	22	22
10	29	21	24	19	18	19	19	17	18	23	22	22
11	24	18	19	19	18	19	17	17	17	23	22	23
12	19	19	19	18	16	17	18	17	17	23	20	21
13	19	17	18	16	15	16	18	18	18	21	21	21
14	17	16	17	16	15	15	19	18	19	22	21	21
15	17	17	17	17	16	16	19	19	19	22	21	22
16	17	16	17	18	17	17	19	19	19	22	21	22
17	17	16	16	18	16	17	19	18	19	22	22	22
18	17	17	17	17	16	16	19	18	18	22	22	22
19	18	17	18	17	17	17	19	19	19	23	22	22
20	19	18	18	18	17	18	19	19	19	23	22	22
21	19	19	19	18	18	18	20	19	20	23	22	23
22	19	19	19	19	18	19	20	19	20	23	23	23
23	19	19	19	19	18	19	20	20	20	24	23	23
24	20	20	20	19	19	19	20	20	20	24	23	24
25	20	20	20	19	19	19	21	20	20	24	23	24
26	21	20	20	19	19	19	22	21	21	25	24	24
27	21	21	21	19	19	19	22	21	21	24	24	24
28	21	21	21	20	19	20	21	20	21	25	23	24
29	---	---	---	20	20	20	21	21	21	24	23	24
30	---	---	---	21	20	21	22	21	21	24	21	23
31	---	---	---	21	21	21	---	---	---	21	19	20
MONTH	29	13	20	21	15	18	22	17	19	25	19	22

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20	19	19	27	26	26	27	26	27	26	25	26
2	21	20	20	26	26	26	27	26	27	26	25	25
3	21	20	21	26	26	26	28	27	27	26	25	25
4	22	21	22	---	---	---	28	27	27	25	25	25
5	22	22	22	---	---	---	27	27	27	25	25	25
6	23	22	22	---	---	---	27	27	27	26	25	26
7	23	22	23	26	25	25	28	27	27	27	26	26
8	24	23	23	26	25	26	28	27	28	26	26	26
9	24	23	23	26	25	26	28	27	27	26	26	26
10	24	23	23	26	25	26	27	27	27	26	26	26
11	24	23	24	26	25	26	27	26	27	26	26	26
12	25	24	24	27	26	26	27	26	27	27	26	26
13	25	24	24	27	26	27	27	26	27	27	26	26
14	25	24	25	27	27	27	27	26	26	29	26	27
15	25	24	25	27	26	27	27	26	26	28	26	27
16	25	24	25	27	26	27	27	26	26	27	26	27
17	25	24	25	26	26	26	27	26	26	27	26	27
18	25	24	25	26	24	25	27	25	26	27	26	27
19	25	24	25	25	24	24	28	26	27	28	27	28
20	25	24	25	26	25	25	27	26	27	28	27	28
21	25	24	24	25	25	25	27	26	27	28	27	28
22	24	23	24	26	25	25	27	26	26	28	27	28
23	25	24	24	26	25	25	27	26	26	28	28	28
24	25	24	25	26	25	26	26	26	26	28	28	28
25	26	25	25	26	26	26	27	25	26	30	28	28
26	26	25	25	26	26	26	27	25	26	30	28	28
27	26	25	26	26	26	26	26	25	26	29	28	28
28	26	26	26	27	26	26	26	25	25	29	28	28
29	27	26	26	27	26	26	26	25	25	29	28	28
30	27	26	26	27	26	27	26	25	26	29	28	28
31	---	---	---	27	26	27	26	25	26	---	---	---
MONTH	27	19	24	---	---	---	28	25	27	30	25	27

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	8.5	9.0	8.5	7.5	8.0	5.5	5.0	5.5	4.5	3.5	4.0
2	8.5	7.5	8.0	8.0	7.5	8.0	5.0	4.5	4.5	4.5	3.5	4.5
3	8.5	7.5	8.5	8.0	7.5	8.0	4.5	4.0	4.0	5.0	4.5	5.0
4	9.5	8.0	8.5	8.0	7.5	7.5	4.0	3.5	4.0	5.0	4.5	5.0
5	10.5	8.5	9.0	8.0	8.0	8.0	4.5	4.0	4.0	4.5	4.0	4.0
6	10.5	9.5	10.0	8.0	7.0	7.5	4.5	4.0	4.5	4.0	3.0	3.5
7	10.5	9.5	10.0	7.0	6.5	7.0	4.0	3.5	3.5	3.0	2.5	3.0
8	10.0	9.0	9.5	6.5	6.0	6.5	3.5	3.0	3.5	2.5	2.5	2.5
9	10.0	9.0	9.5	6.5	5.0	6.0	3.0	2.5	3.0	2.5	2.0	2.0
10	9.5	8.5	9.0	5.0	3.5	4.0	2.5	2.5	2.5	3.0	2.0	2.5
11	9.0	8.0	8.5	6.0	4.5	5.5	3.5	2.5	3.0	4.0	3.0	3.5
12	8.0	7.5	8.0	6.0	4.5	5.5	4.5	3.5	4.0	4.5	4.0	4.0
13	8.0	7.0	7.5	5.5	4.0	5.0	4.5	4.0	4.0	3.5	1.5	3.0
14	7.5	7.0	7.5	6.5	5.5	6.0	5.0	4.0	4.5	2.5	1.0	2.0
15	8.0	7.5	7.5	6.0	5.5	6.0	5.0	4.0	4.0	2.5	1.0	1.5
16	8.0	7.5	8.0	6.5	6.0	6.0	3.5	2.5	3.5	1.5	.5	1.0
17	8.5	8.0	8.5	7.0	6.0	6.5	2.5	2.5	2.5	2.0	1.0	1.5
18	9.0	8.5	9.0	7.5	6.0	7.0	2.5	2.5	2.5	2.5	1.5	2.0
19	9.0	8.0	8.5	7.0	7.0	7.0	3.0	2.5	3.0	2.5	2.0	2.0
20	8.5	8.0	8.0	8.0	7.0	7.5	2.5	2.5	2.5	2.0	1.5	2.0
21	8.5	8.0	8.0	7.5	6.5	7.0	4.0	2.5	3.5	2.5	2.0	2.0
22	8.5	8.0	8.5	7.0	6.5	6.5	5.0	4.0	4.5	3.0	2.0	2.5
23	9.0	8.5	9.0	8.0	6.5	7.5	5.0	4.5	5.0	3.0	2.5	2.5
24	9.5	9.0	9.0	8.0	6.5	7.0	4.5	4.5	4.5	3.0	2.5	3.0
25	10.5	9.5	10.0	6.0	5.5	6.0	5.0	4.0	4.5	3.5	3.0	3.0
26	10.5	10.5	10.5	7.0	6.0	6.5	5.5	5.0	5.0	4.0	3.5	4.0
27	10.5	10.0	10.5	7.5	6.5	7.0	5.0	4.0	4.5	4.5	4.0	4.0
28	10.0	8.5	9.0	7.0	6.0	6.5	4.5	3.5	4.0	4.0	4.0	4.0
29	9.0	8.5	8.5	6.5	5.0	6.0	5.0	4.5	4.5	4.5	4.0	4.5
30	9.0	8.5	8.5	5.5	4.5	5.0	5.0	4.0	4.5	4.5	4.0	4.5
31	9.5	8.5	9.0	---	---	---	4.0	4.0	4.0	4.0	3.5	4.0
MONTH	10.5	7.0	9.0	8.5	3.5	6.5	5.5	2.5	4.0	5.0	.5	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.0	4.5	4.0	3.5	4.0	8.0	6.0	7.0	9.0	7.0	8.0
2	4.5	4.0	4.5	4.5	4.0	4.5	8.0	6.5	7.5	7.0	6.0	6.5
3	5.0	4.5	4.5	5.0	4.5	5.0	7.5	6.0	7.0	9.5	7.0	8.0
4	5.5	4.0	5.0	6.0	5.0	5.5	7.0	6.0	6.5	11.0	7.5	9.0
5	5.0	4.5	5.0	6.0	5.0	5.5	6.5	5.5	6.0	11.5	8.0	9.5
6	5.5	4.0	4.5	5.5	4.5	5.0	7.0	5.5	6.5	13.5	10.0	11.5
7	5.0	4.0	4.5	5.0	4.0	4.5	7.5	6.0	6.5	13.5	11.0	12.5
8	5.5	5.0	5.0	5.5	5.0	5.0	7.5	5.5	6.0	14.0	11.0	12.5
9	5.5	4.5	5.0	6.0	5.0	5.5	7.5	5.0	6.0	14.0	11.5	12.5
10	6.0	5.0	5.5	6.5	5.5	6.0	7.0	5.5	6.0	13.5	11.0	12.0
11	6.0	5.0	5.5	6.0	5.5	6.0	5.5	4.5	5.0	13.5	11.0	12.0
12	5.5	4.5	5.0	6.0	5.5	6.0	6.0	4.5	5.0	13.0	10.5	11.5
13	5.5	5.0	5.5	5.5	5.0	5.5	7.5	4.5	6.0	10.5	9.5	10.0
14	5.5	4.5	5.0	5.5	5.0	5.0	8.0	5.5	6.5	11.0	10.5	10.5
15	5.0	4.5	5.0	5.0	4.5	5.0	8.0	7.5	7.5	11.0	9.5	10.0
16	5.0	4.5	5.0	5.5	5.0	5.0	8.0	6.5	7.5	10.0	8.5	9.0
17	5.0	3.5	4.0	5.5	4.0	5.0	7.5	5.0	6.5	9.0	8.0	8.5
18	4.5	3.5	4.0	4.5	3.5	4.0	5.0	4.0	4.5	9.0	7.5	8.0
19	5.0	4.0	4.5	4.5	3.5	4.0	6.0	4.0	5.0	8.5	7.0	8.0
20	5.0	4.0	4.5	5.0	3.0	4.0	7.5	4.0	5.5	9.5	6.5	8.0
21	5.0	5.0	5.0	5.5	4.0	4.5	8.5	6.0	7.0	10.0	7.5	9.0
22	5.0	3.0	4.0	5.5	3.5	4.5	9.5	6.5	8.0	11.0	8.5	9.5
23	4.0	3.0	3.5	5.0	5.0	5.0	9.5	7.5	8.5	11.0	8.5	9.5
24	3.5	2.5	3.0	5.5	4.5	5.0	8.5	6.5	7.5	10.5	9.5	10.0
25	3.0	2.0	2.5	5.5	4.0	5.0	9.0	6.0	7.0	10.0	8.5	9.0
26	3.5	2.0	2.5	5.0	4.0	4.5	10.5	7.0	8.5	8.5	8.0	8.5
27	3.5	3.0	3.0	5.0	4.0	4.5	11.5	8.5	10.0	8.5	8.0	8.0
28	4.0	3.5	4.0	5.0	3.5	4.5	11.5	10.0	10.5	9.0	8.0	8.5
29	---	---	---	5.0	3.5	4.0	11.0	8.0	9.5	11.5	8.5	9.5
30	---	---	---	6.0	4.0	5.0	10.5	9.0	9.5	11.0	9.0	9.5
31	---	---	---	7.0	4.5	6.0	---	---	---	9.0	8.0	8.5
MONTH	6.0	2.0	4.5	7.0	3.0	5.0	11.5	4.0	7.0	14.0	6.0	9.5

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.0	7.0	8.0	16.5	15.0	16.0	13.0	11.0	12.0	14.0	12.5	13.0
2	11.0	6.5	8.5	16.5	14.0	15.0	14.0	11.5	12.5	14.0	11.5	12.0
3	12.5	9.0	10.5	15.5	13.0	14.0	15.0	12.5	13.5	13.0	11.0	12.0
4	14.0	10.5	11.5	15.5	12.5	13.5	15.0	13.5	14.5	13.5	11.0	12.0
5	12.5	10.5	11.0	12.0	11.5	12.0	15.0	13.5	14.0	14.0	11.5	12.5
6	13.5	10.0	11.5	13.0	11.5	12.0	14.5	13.5	14.0	14.0	12.0	13.0
7	14.0	11.0	12.0	13.0	12.0	12.0	15.0	13.0	14.0	14.0	12.0	13.0
8	13.5	12.0	13.0	12.0	11.5	12.0	15.0	13.0	14.0	14.0	12.5	13.0
9	13.0	10.5	12.0	12.0	11.0	11.5	15.0	13.0	14.0	14.0	12.0	13.0
10	13.0	10.5	11.5	14.0	11.0	12.5	14.5	11.5	12.5	13.5	11.5	12.5
11	13.5	10.0	11.5	15.0	12.5	14.0	12.5	10.5	11.5	13.5	13.0	13.0
12	14.0	11.5	12.5	16.0	13.5	14.5	13.0	11.0	12.0	13.0	12.5	13.0
13	15.0	11.5	13.5	16.5	14.0	15.0	13.0	11.0	11.5	13.0	12.5	12.5
14	14.5	12.0	13.5	17.0	14.5	15.5	11.5	10.5	11.0	12.5	12.0	12.0
15	14.0	11.0	12.0	16.5	14.0	15.0	11.0	10.5	10.5	12.0	11.5	11.5
16	11.0	9.5	10.0	14.5	12.0	13.0	10.5	10.0	10.5	11.5	10.5	11.0
17	11.5	9.0	10.0	12.0	11.0	11.5	11.5	9.0	10.0	12.0	10.5	11.0
18	13.0	10.0	11.5	11.5	11.0	11.0	12.5	10.0	11.0	12.0	10.5	11.5
19	13.5	11.0	12.0	13.0	10.5	12.0	12.5	10.5	11.5	12.0	11.0	11.5
20	13.5	11.5	12.0	13.0	11.5	12.5	12.5	11.0	11.5	13.0	11.5	12.0
21	12.0	10.5	11.0	14.0	12.0	13.0	12.0	10.0	11.0	13.5	12.0	12.5
22	12.5	10.0	11.0	14.0	12.0	13.0	12.5	10.0	11.0	13.5	12.5	13.0
23	12.5	10.0	11.0	14.5	11.5	12.5	12.5	11.0	11.5	13.5	12.5	13.0
24	14.0	10.5	12.0	15.5	13.5	14.0	12.5	10.5	11.5	13.5	12.5	13.0
25	15.5	12.0	13.5	15.0	13.5	14.0	13.0	10.5	11.5	12.5	12.5	12.5
26	16.0	13.0	14.5	14.0	12.5	13.0	13.0	10.5	12.0	12.5	11.5	12.0
27	16.0	14.0	15.0	14.5	12.5	13.0	13.5	11.0	12.0	11.5	10.0	10.5
28	16.5	13.5	15.0	14.5	13.0	14.0	13.0	11.0	12.0	11.5	10.5	11.0
29	17.0	14.5	15.5	14.5	13.0	13.5	13.0	10.5	11.5	12.0	11.0	11.5
30	16.5	15.5	16.0	14.0	13.0	13.5	14.0	11.0	12.5	12.0	11.5	11.5
31	---	---	---	13.0	12.0	12.5	14.5	12.0	13.0	---	---	---
MONTH	17.0	6.5	12.0	17.0	10.5	13.0	15.0	9.0	12.0	14.0	10.0	12.0
YEAR	17.0	.5	8.0									

14138870 FIR CREEK NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°28'56", long 122°01'36", in NE 1/4 SE 1/4 sec.14, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, on right bank, 6.4 mi north of Brightwood and 0.6 mi above Bull Run Reservoir Number One.

DRAINAGE AREA.--5.46 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORDS.--WDR OR-78-1: 1976. WDR OR-82-2: 1976(P), 1978-79(P), 1981.

GAGE.--Water-stage recorder. Elevation of gage is 1,440 ft, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--12 years, 34.4 ft^3/s, 85.56 in/yr, 24,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft^3/s Dec. 2, 1977, gage height, 5.64 ft; minimum discharge, 1.9 ft^3/s Aug. 17-23, 1977, Sept. 16-18, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 31	2300	*372	*4.30				

Minimum discharge, 2.1 ft^3/s Sept. 6-14, 21-25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	23	50	74	256	61	24	19	28	4.6	3.3	2.2
2	23	16	40	65	128	101	25	26	22	4.4	3.3	2.2
3	19	13	33	67	90	128	27	27	18	4.4	3.2	2.3
4	16	11	29	55	63	100	28	22	16	4.6	3.2	2.2
5	13	12	28	45	50	71	27	20	14	6.1	3.0	2.2
6	12	20	26	35	42	60	34	18	13	5.6	3.0	2.1
7	11	61	22	28	38	46	33	16	11	4.7	3.0	2.1
8	9.3	44	20	24	34	38	55	15	11	4.6	2.9	2.1
9	8.5	39	18	21	32	36	42	13	9.7	4.4	2.9	2.1
10	7.8	31	16	19	30	34	60	12	9.1	4.7	2.9	2.1
11	7.3	26	15	17	30	36	68	11	8.5	4.4	2.9	2.1
12	6.9	24	15	20	26	64	60	31	8.2	4.2	2.8	2.1
13	6.6	22	20	19	38	79	50	24	7.7	4.0	3.3	2.1
14	6.3	23	24	19	55	104	40	24	7.4	3.9	5.8	2.9
15	6.1	20	22	17	50	75	34	22	7.3	3.8	3.9	5.0
16	5.8	60	19	15	54	58	30	20	7.0	3.6	3.5	3.4
17	5.8	129	17	14	73	70	40	18	6.7	3.7	3.2	2.7
18	6.3	98	16	13	59	68	38	16	6.4	7.5	3.0	2.4
19	5.7	93	15	12	46	57	35	15	6.0	7.1	2.9	2.3
20	5.4	136	13	12	39	52	34	13	6.1	5.1	2.9	2.2
21	5.1	140	13	12	36	49	34	12	9.2	5.9	2.8	2.1
22	5.0	136	17	12	33	41	31	11	7.6	6.1	2.8	2.1
23	4.8	137	28	13	30	41	28	11	6.5	5.1	2.7	2.1
24	4.6	98	28	37	26	38	25	10	5.9	4.8	2.7	2.1
25	4.8	71	28	81	23	37	22	9.7	5.6	4.6	2.6	2.5
26	7.7	127	33	124	21	35	20	9.3	5.4	4.3	2.6	7.5
27	14	210	28	107	19	30	19	9.4	5.2	4.2	2.5	3.4
28	10	152	24	84	18	28	18	9.8	5.0	4.1	2.5	2.8
29	9.1	94	29	64	---	24	16	9.3	4.8	3.7	2.5	2.6
30	16	63	32	54	---	22	17	20	4.8	3.4	2.4	2.5
31	34	---	28	131	---	22	---	31	---	3.4	2.3	---
TOTAL	327.9	2129	746	1310	1439	1705	1014	524.5	283.1	145.0	93.3	78.5
MEAN	10.6	71.0	24.1	42.3	51.4	55.0	33.8	16.9	9.44	4.68	3.01	2.62
MAX	34	210	50	131	256	128	68	31	28	7.5	5.8	7.5
MIN	4.6	11	13	12	18	22	16	9.3	4.8	3.4	2.3	2.1
AC-FT	650	4220	1480	2600	2850	3380	2010	1040	562	288	185	156
CFSM	1.94	13.0	4.41	7.74	9.41	10.1	6.19	3.10	1.73	.86	.55	.48
IN.	2.23	14.51	5.08	8.93	9.80	11.62	6.91	3.57	1.93	.99	.64	.53

CAL YR 1986 TOTAL 11316.4 MEAN 31.0 MAX 536 MIN 2.4 AC-FT 22450 CFSM 5.68 IN. 77.10
WTR YR 1987 TOTAL 9795.3 MEAN 26.8 MAX 256 MIN 2.1 AC-FT 19430 CFSM 4.92 IN. 66.74

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1977 to current year.
WATER TEMPERATURE: October 1977 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1977 to September 1986.

INSTRUMENTATION.--Conductivity/temperature recorder since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 37 microsiemens Jan. 7, 8, 1987; minimum, 9 microsiemens Dec. 4, 1978.
WATER TEMPERATURE: Maximum recorded, 16.0°C Sept. 1, 1987; minimum recorded, 0.0°C on several days in 1978-80, 1983.
SEDIMENT CONCENTRATION: Maximum, 200 mg/L Jan. 23, Feb. 20, 1982; minimum, 0 mg/L on many days.
SEDIMENT DISCHARGE: Maximum, 345 tons Dec. 2, 1977; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 37 microsiemens Jan. 7, 8; minimum, 13 microsiemens Feb. 1.
WATER TEMPERATURE: Maximum, 16.0°C Sept. 1; minimum, 2.0°C Jan. 13, 15, 16.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20	20	20	22	22	22	28	22	24	---	---	---
2	21	20	20	22	22	22	27	22	24	---	---	---
3	21	21	21	22	22	22	30	23	26	---	---	---
4	22	21	22	22	22	22	29	23	25	---	---	---
5	22	22	22	22	21	22	25	24	24	---	---	---
6	23	22	22	22	22	22	25	24	24	---	---	---
7	23	22	22	22	21	21	25	24	24	37	28	31
8	23	22	23	21	21	21	25	24	24	37	30	32
9	23	22	23	21	20	21	25	24	25	34	30	32
10	23	23	23	21	20	21	25	25	25	33	30	31
11	23	23	23	21	21	21	25	25	25	32	31	32
12	23	23	23	21	21	21	25	25	25	32	30	31
13	23	23	23	21	21	21	25	24	25	31	29	30
14	24	23	23	21	21	21	24	24	24	31	28	29
15	24	23	23	21	21	21	24	24	24	32	29	31
16	24	23	24	21	18	20	24	24	24	32	31	32
17	24	24	24	---	---	---	24	24	24	33	32	32
18	25	24	24	21	19	20	24	24	24	33	32	32
19	24	24	24	21	20	20	25	24	24	33	32	32
20	25	24	24	21	19	20	25	24	24	34	31	33
21	25	24	24	20	19	20	25	24	25	33	32	33
22	25	24	24	20	19	20	28	24	25	33	33	33
23	25	24	24	---	19	---	24	24	24	33	32	33
24	25	24	25	---	20	---	24	24	24	33	32	32
25	25	25	25	21	20	21	24	23	24	32	31	32
26	26	25	25	21	19	20	24	24	24	31	26	28
27	25	24	25	---	18	---	24	24	24	30	22	25
28	24	24	24	21	19	20	25	24	24	28	23	26
29	24	23	24	26	20	22	25	23	24	28	27	27
30	24	22	23	28	21	24	25	23	24	28	27	27
31	23	22	23	---	---	---	26	25	25	27	16	23
MONTH	26	20	23	---	---	---	30	22	24	---	---	---

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	18	13	16	22	20	21	23	22	22	19	18	19
2	19	18	18	20	18	19	22	22	22	19	18	18
3	20	19	19	24	19	20	22	21	21	18	18	18
4	20	20	20	24	22	23	21	21	21	19	18	19
5	21	20	21	25	23	24	21	21	21	19	19	19
6	21	21	21	25	23	24	21	21	21	19	19	19
7	21	21	21	---	---	---	18	17	18	20	19	19
8	22	21	22	---	---	---	18	16	17	20	19	20
9	22	21	22	---	---	---	18	17	17	20	20	20
10	22	22	22	---	---	---	18	16	17	20	20	20
11	22	21	22	22	21	21	18	17	17	20	20	20
12	22	22	22	21	21	21	18	18	18	20	18	19
13	22	20	21	21	20	21	18	18	18	19	18	19
14	20	20	20	20	19	20	19	18	19	19	18	19
15	21	20	20	21	20	21	20	19	19	19	18	19
16	20	20	20	21	21	21	20	20	20	19	18	19
17	20	20	20	22	20	21	20	19	20	19	19	19
18	21	20	20	22	21	21	20	20	20	19	19	19
19	21	21	21	22	21	22	20	20	20	19	19	19
20	22	21	21	22	22	22	20	20	20	20	19	19
21	22	21	21	23	22	22	20	20	20	20	19	20
22	22	21	22	24	23	24	21	20	20	20	20	20
23	22	21	22	25	24	25	22	21	21	20	20	20
24	22	22	22	26	25	25	22	18	21	21	20	20
25	22	22	22	27	26	26	19	18	19	21	20	20
26	22	22	22	27	26	27	19	19	19	21	20	20
27	23	22	22	27	24	25	19	19	19	21	20	21
28	23	22	22	25	24	24	23	19	21	21	20	21
29	---	---	---	24	23	23	19	19	19	21	20	20
30	---	---	---	27	22	25	20	18	19	21	18	20
31	---	---	---	26	22	24	---	---	---	19	18	18
MONTH	23	13	21	---	---	---	23	16	20	21	18	19

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18	18	18	25	24	24	24	23	24	26	25	25
2	19	18	18	24	23	24	24	24	24	25	24	25
3	19	19	19	24	24	24	25	24	24	25	24	25
4	20	19	19	24	23	24	25	24	24	25	24	25
5	20	19	19	24	23	23	24	24	24	25	25	25
6	20	20	20	24	23	23	24	23	24	25	25	25
7	21	20	20	24	23	23	25	24	24	25	25	25
8	21	20	20	24	23	24	25	24	25	25	25	25
9	21	20	20	24	23	24	25	24	25	25	25	25
10	21	20	21	25	24	24	25	24	24	25	23	24
11	21	21	21	25	24	24	24	24	24	25	24	24
12	21	21	21	25	24	25	25	24	24	25	23	24
13	22	21	21	25	25	25	25	24	24	25	24	24
14	22	21	21	25	25	25	24	23	24	25	24	25
15	22	21	21	25	24	25	25	24	24	25	25	25
16	21	21	21	25	24	24	24	24	24	25	25	25
17	22	21	21	24	24	24	24	24	24	25	25	25
18	22	21	22	25	23	24	25	24	24	25	25	25
19	22	22	22	24	24	24	25	24	25	25	25	25
20	22	21	22	24	24	24	25	24	24	26	25	26
21	22	21	21	25	23	24	25	24	24	26	25	26
22	22	21	21	25	24	24	25	24	24	26	25	26
23	22	21	22	25	24	24	25	24	25	26	25	26
24	22	22	22	25	24	25	25	24	25	26	25	26
25	---	---	---	25	24	24	25	24	25	25	25	25
26	---	---	---	25	24	25	25	24	25	26	25	25
27	---	---	---	25	24	25	25	25	25	26	26	26
28	---	---	---	25	24	25	25	25	25	26	26	26
29	---	---	---	25	23	24	25	25	25	26	25	25
30	---	---	---	24	23	24	25	25	25	26	25	25
31	---	---	---	24	23	24	25	25	25	---	---	---
MONTH	---	---	---	25	23	24	25	23	24	26	23	25

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	8.0	8.0	8.0	7.0	7.5	5.5	5.0	5.5	4.5	---	---
2	8.0	7.0	7.5	7.5	7.0	7.5	5.0	4.5	5.0	---	---	---
3	7.5	7.0	7.5	7.5	7.0	7.5	4.5	4.0	4.5	---	---	---
4	8.0	7.5	8.0	7.5	7.0	7.0	4.5	4.0	4.0	---	---	---
5	8.5	8.0	8.5	7.5	7.0	7.5	5.0	4.0	4.5	---	---	---
6	9.0	8.5	9.0	7.0	6.5	7.0	4.5	4.0	4.5	4.5	---	---
7	9.0	8.5	9.0	6.5	6.5	6.5	4.0	3.5	4.0	4.0	3.5	4.0
8	9.0	8.5	8.5	6.5	6.0	6.0	3.5	3.5	3.5	3.5	3.5	3.5
9	8.5	8.0	8.5	6.0	5.0	6.0	3.5	3.0	3.5	3.5	3.0	3.5
10	8.5	8.0	8.0	5.0	4.0	4.5	3.5	3.0	3.0	4.0	3.5	4.0
11	8.0	7.5	8.0	5.5	5.0	5.5	4.0	3.0	3.5	4.5	4.0	4.0
12	7.5	7.5	7.5	5.5	4.5	5.0	4.5	4.0	4.0	5.0	4.0	4.5
13	7.5	7.0	7.5	5.5	4.5	5.0	4.5	4.0	4.5	4.0	2.0	3.5
14	7.5	6.5	7.0	6.0	5.5	5.5	5.0	4.5	4.5	3.5	2.5	3.0
15	7.5	7.0	7.5	5.5	5.5	5.5	4.5	3.5	4.0	3.0	2.0	2.5
16	7.5	7.0	7.5	6.0	5.5	6.0	3.5	3.0	3.5	2.5	2.0	2.0
17	8.0	7.5	7.5	6.0	6.0	6.0	3.0	3.0	3.0	3.0	2.5	2.5
18	8.0	7.5	8.0	6.5	6.0	6.5	3.0	2.5	3.0	3.5	2.5	3.0
19	8.0	7.0	7.5	6.5	6.5	6.5	3.5	3.0	3.5	3.5	3.0	3.0
20	7.5	7.0	7.5	7.0	6.5	7.0	3.5	3.0	3.0	3.0	2.5	3.0
21	7.5	7.0	7.5	6.5	6.0	6.5	4.0	3.5	4.0	3.5	3.0	3.0
22	8.0	7.5	7.5	6.0	6.0	6.0	4.5	4.0	4.5	3.5	3.0	3.5
23	8.0	7.5	8.0	7.0	6.0	6.5	4.5	4.5	4.5	4.0	3.5	3.5
24	8.5	8.0	8.5	7.0	6.0	6.5	4.5	4.0	4.5	4.0	3.5	4.0
25	9.0	8.5	9.0	6.0	5.5	5.5	4.5	4.0	4.5	4.5	4.0	4.0
26	9.5	9.0	9.0	6.5	5.5	6.0	5.0	4.5	5.0	4.5	4.0	4.5
27	9.5	9.0	9.0	6.5	6.0	6.5	4.5	4.0	4.5	5.0	4.5	4.5
28	9.0	8.0	8.5	6.0	5.5	6.0	4.5	4.0	4.0	5.0	4.5	5.0
29	8.5	8.0	8.0	5.5	5.0	5.5	5.0	4.5	5.0	5.0	5.0	5.0
30	8.0	8.0	8.0	5.5	5.0	5.0	5.0	4.0	4.5	5.0	4.5	5.0
31	8.5	8.0	8.0	---	---	---	4.5	4.0	4.0	5.0	4.0	4.5
MONTH	9.5	6.5	8.0	8.0	4.0	6.0	5.5	2.5	4.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	4.5	4.5	4.5	4.0	4.5	6.5	5.5	6.0	7.0	5.5	6.0
2	5.0	4.5	5.0	4.5	4.5	4.5	7.0	6.0	6.5	5.5	5.0	5.5
3	5.5	5.0	5.0	5.0	4.5	5.0	6.5	6.0	6.0	6.5	5.5	6.0
4	5.5	5.0	5.5	5.5	5.0	5.5	6.5	5.5	6.0	7.0	6.0	6.5
5	5.5	5.0	5.5	6.0	5.5	5.5	6.0	5.5	6.0	8.0	6.0	7.5
6	5.5	5.0	5.5	5.5	5.0	5.0	6.5	5.5	6.0	9.5	7.5	8.5
7	5.5	5.0	5.5	---	---	---	6.5	5.0	6.0	10.5	8.5	9.5
8	6.0	5.5	5.5	---	---	---	6.0	5.0	5.5	10.5	9.0	10.0
9	6.0	5.5	5.5	---	---	---	6.0	4.5	5.5	11.0	9.0	10.0
10	6.5	5.5	6.0	---	---	---	6.0	5.0	5.5	10.5	9.0	9.5
11	6.0	5.5	6.0	5.5	5.0	5.5	5.0	4.5	4.5	10.5	8.5	9.5
12	6.0	5.0	5.5	5.5	5.0	5.5	5.5	4.5	5.0	10.0	8.5	9.0
13	5.5	5.5	5.5	5.5	4.5	5.0	6.0	5.0	5.5	8.5	8.0	8.0
14	5.5	5.0	5.0	5.0	4.5	5.0	6.5	5.5	6.0	8.5	8.0	8.0
15	5.5	5.0	5.0	5.0	4.5	5.0	7.0	6.5	6.5	8.0	7.0	7.5
16	5.0	5.0	5.0	5.0	4.5	5.0	7.0	6.0	6.5	7.0	6.5	7.0
17	5.0	4.0	4.5	5.0	4.0	5.0	6.5	4.5	5.5	7.0	6.5	6.5
18	5.0	4.5	4.5	4.5	3.5	4.0	4.5	4.0	4.5	6.5	6.0	6.0
19	5.0	4.5	5.0	4.5	3.0	4.0	5.0	4.0	4.5	6.5	5.5	6.0
20	5.5	4.5	5.0	4.5	3.0	4.0	6.0	4.0	5.0	7.0	5.0	6.0
21	5.0	5.0	5.0	5.0	4.0	4.5	6.5	5.0	6.0	7.5	5.5	6.5
22	5.0	4.0	4.5	5.0	4.0	4.5	7.0	5.5	6.5	7.5	6.5	7.0
23	4.5	4.0	4.0	5.0	4.5	4.5	7.5	6.5	7.0	8.0	6.5	7.0
24	4.0	3.5	3.5	5.0	4.5	5.0	7.0	5.5	6.5	7.5	7.0	7.5
25	3.5	3.0	3.0	5.0	4.0	4.5	7.0	5.5	6.5	7.5	6.5	6.5
26	4.0	3.0	3.5	4.5	4.0	4.5	8.5	6.5	7.5	6.5	6.5	6.5
27	4.0	3.5	4.0	4.5	4.0	4.5	9.5	7.5	8.5	6.5	6.0	6.5
28	4.5	4.0	4.0	4.5	3.5	4.0	9.5	7.5	9.0	7.0	6.0	6.5
29	---	---	---	4.5	3.5	4.0	8.5	7.0	7.5	8.0	6.0	7.0
30	---	---	---	5.5	4.0	5.0	8.0	7.0	7.5	7.5	6.5	7.0
31	---	---	---	6.5	5.0	5.5	---	---	---	6.5	6.0	6.5
MONTH	6.5	3.0	5.0	---	---	---	9.5	4.0	6.0	11.0	5.0	7.5

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.5	5.5	6.0	14.0	12.5	13.5	13.0	11.5	12.0	16.0	15.0	15.5
2	8.0	5.5	6.5	13.5	12.0	12.5	13.5	11.5	12.5	15.0	14.0	14.5
3	9.0	7.0	8.0	13.0	11.5	12.5	14.0	12.5	13.5	14.0	13.0	13.5
4	10.0	8.0	9.0	12.5	11.0	11.5	14.5	13.0	14.0	13.5	12.5	13.0
5	9.0	8.0	8.5	11.0	10.5	11.0	14.5	13.0	13.5	14.0	13.0	13.5
6	10.0	7.5	8.5	11.5	10.0	10.5	13.5	13.0	13.5	14.5	13.0	13.5
7	10.0	8.0	9.0	11.0	10.5	10.5	14.5	13.0	13.5	14.5	13.5	13.5
8	10.0	9.0	9.5	11.0	10.5	10.5	15.5	13.5	14.5	14.0	13.5	13.5
9	9.5	8.0	9.0	10.5	10.0	10.0	15.5	14.5	15.0	14.0	13.0	13.5
10	9.5	8.0	9.0	11.0	10.0	10.5	15.0	14.0	14.0	13.5	12.5	13.0
11	10.0	8.0	9.0	12.5	10.5	11.5	14.0	13.5	13.5	13.5	13.0	13.0
12	10.0	8.5	9.5	13.0	11.5	12.5	14.5	13.0	13.5	13.0	13.0	13.0
13	11.0	9.0	10.0	14.0	12.0	13.0	13.5	13.0	13.5	13.0	12.5	12.5
14	11.5	9.5	10.5	15.0	12.5	14.0	13.0	12.5	12.5	12.5	12.0	12.0
15	10.5	8.5	9.0	14.0	12.5	13.5	12.5	12.5	12.5	12.0	11.0	11.5
16	8.5	7.5	8.0	13.0	11.5	12.0	12.5	12.0	12.0	11.0	10.5	11.0
17	9.0	7.0	8.0	11.5	11.0	11.5	12.5	11.0	12.0	11.0	10.0	10.5
18	9.5	7.5	8.5	11.0	10.5	11.0	13.0	12.0	12.5	11.5	10.5	11.0
19	10.5	8.0	9.5	12.0	10.0	11.0	13.5	12.0	12.5	11.5	10.5	11.0
20	9.5	8.5	9.0	12.0	10.5	11.5	13.5	12.5	12.5	12.0	11.0	11.5
21	9.0	8.0	8.5	12.5	11.0	12.0	13.0	11.5	12.5	12.5	11.5	12.0
22	9.0	7.5	8.5	12.0	11.5	11.5	13.0	12.0	12.5	13.0	12.0	12.5
23	9.5	7.5	8.5	12.5	11.0	11.5	14.0	13.0	13.5	13.0	12.5	13.0
24	10.5	8.0	9.5	12.5	12.0	12.0	14.0	13.0	13.5	13.0	12.5	12.5
25	---	---	---	12.5	12.0	12.5	14.0	13.0	13.5	12.5	12.0	12.0
26	---	---	---	12.0	11.5	12.0	14.5	13.5	14.0	12.0	11.0	11.5
27	---	---	---	13.5	11.5	12.5	14.5	13.5	14.0	11.0	10.0	10.5
28	---	---	---	13.5	12.5	13.0	14.5	13.5	14.0	11.0	10.0	10.5
29	---	---	---	13.5	12.5	13.0	14.5	13.0	14.0	11.5	10.5	11.0
30	14.0	---	---	13.0	12.5	13.0	15.0	13.5	14.5	12.0	11.0	11.5
31	---	---	---	13.0	12.5	12.5	15.5	14.5	15.0	---	---	---
MONTH	---	---	---	15.0	10.0	12.0	15.5	11.0	13.5	16.0	10.0	12.5

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

LOCATION.--Lat 45°29'40", long 122°02'05", near line between SE 1/4 and SW 1/4 sec.11, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, Mount Hood National Forest, on left bank 7.0 mi southeast of Multnomah Falls and at mouth.

DRAINAGE AREA.--8.32 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,060 ft, from topographic map. Prior to Oct. 1, 1978, at site 700 ft upstream at datum 18.7 ft higher.

REMARKS.--No estimated daily discharges. Records good. Regulation at times since 1958 by North Fork Reservoir, capacity, about 1,030 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--22 years, 76.0 ft^3/s, 124.05 in/yr, 55,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft^3/s, probably affected by surge from release of water temporarily impounded by landslide upstream from station, Jan. 20, 1972, gage height, 9.89 ft, from floodmark, from rating curve extended above 850 ft^3/s on basis of estimate of peak flow from slope-area survey; minimum discharge, 9.1 ft^3/s Oct. 2-14, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 31	2330	*869	*6.05	No other peak greater than base discharge.			

Minimum discharge, 9.8 ft^3/s several days in September.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	53	82	174	600	173	37	38	50	15	12	10
2	39	37	67	122	257	200	37	57	39	15	12	10
3	32	30	56	151	178	274	45	52	33	15	12	10
4	28	27	49	117	113	202	42	41	30	15	11	10
5	25	35	51	91	88	141	44	[illegible]	29	21	11	9.9
6	23	43	47	71	74	116	49	32	28	18	11	9.8
7	22	112	40	59	65	88	51	30	26	15	11	9.8
8	20	74	36	51	59	74	87	29	25	15	11	9.8
9	19	67	33	45	55	74	60	27	24	14	11	9.8
10	18	50	31	41	52	70	103	[illegible]	23	16	11	9.8
11	18	44	30	39	66	79	119	25	23	14	11	9.8
12	17	39	33	49	55	132	102	55	22	14	11	10
13	16	38	53	49	84	140	81	[illegible]	[illegible]	13	13	10
14	16	40	66	50	116	168	67	[illegible]	20	13	16	13
15	16	33	54	41	102	122	59	35	20	13	13	18
16	15	176	45	37	126	99	53	31	19	13	12	13
17	16	265	40	34	148	137	73	29	19	13	11	11
18	17	178	38	33	105	118	68	28	19	17	11	11
19	15	191	37	31	85	96	60	[illegible]	18	16	11	10
20	15	232	34	29	73	91	53	[illegible]	18	14	11	10
21	15	278	35	29	64	84	48	[illegible]	[illegible]	14	11	9.8
22	14	356	59	28	62	72	44	[illegible]	25	18	11	9.8
23	14	334	95	30	57	72	41	[illegible]	20	15	11	9.8
24	14	243	78	81	49	65	38	23	18	14	11	9.8
25	14	154	69	133	43	60	35	23	17	13	11	11
26	24	266	86	202	40	58	32	23	16	13	10	18
27	28	426	65	189	37	51	30	23	16	13	10	12
28	23	279	55	152	37	46	29	26	16	12	10	11
29	21	171	73	119	---	42	28	24	16	12	10	10
30	38	107	65	101	---	40	31	51	15	12	10	9.8
31	96	---	55	360	---	38	---	69	---	12	10	---
TOTAL	738	4378	1657	2738	2890	3222	1646	1034	691	447	348	325.7
MEAN	23.8	146	53.5	88.3	103	104	54.9	33.4	23.0	14.4	11.2	10.9
MAX	96	426	95	360	600	274	119	69	50	21	16	18
MIN	14	27	30	28	37	38	28	23	15	12	10	9.8
AC-FT	1460	8680	3290	5430	5730	6390	3260	2050	1370	887	690	646
CFSM	2.86	17.5	6.42	10.6	12.4	12.5	6.59	4.01	2.77	1.73	1.35	1.30
IN.	3.30	19.57	7.41	12.24	12.92	14.41	7.36	4.62	3.09	2.00	1.56	1.46

CAL YR 1986 TOTAL 24670 MEAN 67.6 MAX 1310 MIN 12 AC-FT 48930 CFSM 8.12 IN. 110.30
WTR YR 1987 TOTAL 20114.7 MEAN 55.1 MAX 600 MIN 9.8 AC-FT 39900 CFSM 6.62 IN. 89.94

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1978 to current year.
pH: October 1980 to September 1981.
WATER TEMPERATURE: October 1978 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1986.

INSTRUMENTATION.--Water-quality monitor, prior to October 1980, conductivity/temperature recorder.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 103 microsiemens Jan. 13, 1981 (cement spill); minimum, 9 microsiemens Dec. 25, 1980, Jan. 6, 1983, Feb. 23, 1986.
pH: Maximum, 9.8 units Jan. 13, 1981 (cement spill); minimum, 6.3 units, June 19, 1981.
WATER TEMPERATURE: Maximum recorded, 14.0°C July 18-20, 1979, July 27, Aug. 9, 1981, May 31, June 1, 1986; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily, 205 mg/L Dec. 25, 1980; minimum, 0 mg/L on many days.
SEDIMENT DISCHARGE: Maximum daily, 765 tons Feb. 23, 1986; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 43 microsiemens Sept. 21; minimum, 13 microsiemens Jan. 31, Feb. 1.
WATER TEMPERATURE: Maximum, 13.5°C June 29, 30, July 1, 13, 14, Aug. 8; minimum, 1.0°C Jan. 16.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	25	23	24	26	24	25	20	19	20	23	17	18
2	26	25	25	27	26	26	22	20	21	19	18	19
3	28	26	27	28	27	28	23	22	22	19	17	18
4	29	28	28	29	28	29	23	23	23	19	18	19
5	30	29	29	30	26	28	24	22	23	20	19	20
6	31	30	30	28	25	27	24	22	24	22	20	21
7	32	31	31	25	22	22	25	24	25	23	22	22
8	33	32	32	23	22	23	26	25	26	24	23	23
9	33	32	33	23	22	23	27	26	27	25	24	24
10	34	33	33	24	23	24	28	27	27	25	25	25
11	34	34	34	25	24	25	28	27	28	26	25	26
12	35	34	34	26	25	25	28	27	27	26	23	25
13	35	34	35	26	25	26	28	22	25	24	23	24
14	35	35	35	26	25	25	24	22	23	25	23	24
15	36	35	35	27	26	26	24	22	23	26	25	25
16	36	35	36	26	16	21	25	24	24	27	26	26
17	36	36	36	18	16	17	26	25	25	27	26	27
18	36	35	36	19	17	18	26	26	26	28	27	27
19	37	36	37	19	17	18	26	26	26	28	28	28
20	38	37	37	19	16	18	27	26	27	29	28	29
21	38	37	37	17	16	17	27	26	27	29	29	29
22	38	37	38	16	15	16	27	20	24	30	29	29
23	38	37	38	16	15	16	22	20	21	30	28	29
24	38	38	38	17	15	16	22	21	21	29	21	24
25	39	38	38	18	17	17	22	21	22	22	18	20
26	38	33	36	18	15	16	22	20	21	19	17	18
27	34	33	33	16	14	15	23	21	22	18	17	18
28	35	33	34	16	16	16	23	23	23	18	17	18
29	35	33	34	18	17	17	23	20	22	20	19	19
30	33	28	31	19	18	19	23	21	22	20	19	20
31	27	23	24	---	---	---	23	23	23	20	13	17
MONTH	39	23	33	30	14	21	28	19	24	30	13	23

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15	13	14	26	18	20	28	27	27	29	27	28
2	16	15	16	19	17	18	28	27	27	27	24	25
3	18	16	17	17	16	16	28	25	26	26	24	25
4	20	18	19	18	16	17	26	25	26	28	27	27
5	21	20	20	19	18	18	26	23	26	30	28	28
6	22	21	21	20	18	19	25	23	24	31	29	29
7	23	22	22	21	20	20	25	24	24	31	29	30
8	23	23	23	22	21	22	24	20	21	31	30	31
9	24	23	23	22	21	22	24	22	23	32	31	31
10	29	24	25	23	21	22	24	18	21	33	31	32
11	29	21	23	23	19	22	20	19	19	32	31	32
12	24	23	23	20	19	19	20	19	20	32	25	27
13	23	20	21	20	18	19	22	20	21	29	27	28
14	20	19	19	19	18	18	23	22	22	30	27	28
15	20	19	20	20	19	19	24	23	23	29	28	29
16	20	17	19	21	20	20	24	23	24	30	29	29
17	19	17	18	21	18	19	24	21	22	30	29	30
18	20	19	20	20	19	20	22	21	22	31	30	30
19	21	20	21	21	20	20	23	22	23	31	30	31
20	22	21	22	21	21	21	24	23	24	32	31	31
21	23	22	23	22	21	27	25	24	25	32	31	32
22	24	23	23	23	22	22	26	25	25	33	32	32
23	24	23	24	23	22	23	27	26	26	33	32	33
24	25	24	24	23	23	23	27	26	27	33	32	33
25	26	25	25	24	23	24	28	27	27	33	33	33
26	27	26	26	24	23	24	29	28	28	33	33	33
27	27	26	27	25	24	25	30	28	29	33	33	33
28	27	26	27	26	25	25	30	29	30	34	31	33
29	---	---	---	27	26	26	31	30	30	35	32	33
30	---	---	---	27	26	27	31	18	30	36	24	30
31	---	---	---	28	26	27	---	---	---	26	23	24
MONTH	29	13	22	28	16	21	31	18	25	36	23	30

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	37	24	25	38	37	38	40	38	39	42	41	42
2	30	27	28	38	36	37	40	39	39	42	40	41
3	32	28	30	38	37	38	40	39	40	41	40	41
4	32	29	31	38	37	37	40	39	40	42	40	41
5	31	30	30	37	32	34	40	39	40	42	41	41
6	32	30	30	38	34	35	40	39	40	42	41	42
7	33	31	32	39	36	37	41	39	40	42	41	42
8	34	32	32	39	37	38	41	39	40	42	41	41
9	33	32	32	38	36	37	41	39	40	42	41	41
10	33	32	33	38	36	37	40	39	40	42	41	41
11	34	33	33	38	37	38	41	39	40	42	41	41
12	35	33	34	39	37	38	41	39	40	42	41	41
13	35	33	34	39	38	38	41	38	39	41	40	41
14	35	33	34	39	38	39	38	36	37	41	37	40
15	34	33	34	39	38	38	39	38	38	39	37	38
16	34	33	34	39	38	38	39	38	39	40	39	40
17	36	34	35	39	38	38	40	39	39	41	40	40
18	37	35	36	38	35	36	41	39	40	41	40	41
19	37	35	36	38	36	37	41	40	40	42	41	41
20	37	35	36	39	37	38	41	39	40	42	41	42
21	35	32	33	39	37	38	41	39	40	43	41	42
22	34	32	33	39	35	36	41	39	40	42	41	42
23	35	33	34	38	37	37	41	40	41	42	41	42
24	36	35	35	39	37	38	42	40	41	42	41	42
25	37	35	36	39	38	38	42	40	41	42	40	41
26	37	36	37	39	38	38	41	40	41	40	36	38
27	37	36	37	39	38	38	42	40	41	41	39	40
28	37	36	37	39	38	38	42	41	41	41	40	41
29	38	36	37	39	38	39	42	40	41	42	41	41
30	38	37	37	40	38	39	42	41	41	42	41	42
31	---	---	---	40	38	39	42	41	42	---	---	---
MONTH	38	24	33	40	32	38	42	36	40	43	36	41

YEAR MAXIMUM 43 MINIMUM 13 MEAN 29

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.5	8.0	8.5	8.0	7.5	8.0	5.0	4.5	5.0	4.0	3.0	4.0
2	9.0	7.5	8.0	8.5	7.0	7.5	4.5	4.0	4.5	4.5	3.5	4.0
3	8.5	7.5	8.0	8.0	7.5	8.0	4.0	4.0	4.0	4.5	4.0	4.5
4	9.0	8.0	8.5	8.0	7.0	7.5	4.0	4.0	4.0	4.5	4.0	4.0
5	10.0	8.0	9.0	8.0	7.5	7.5	4.5	4.0	4.5	4.0	3.5	4.0
6	10.0	8.5	9.5	7.5	7.0	7.0	4.5	4.0	4.0	3.5	3.0	3.0
7	9.5	8.0	9.0	7.0	6.5	6.5	4.0	3.5	4.0	3.0	2.5	3.0
8	9.5	8.5	9.0	6.5	6.0	6.5	4.0	3.0	3.5	3.0	2.5	2.5
9	9.0	8.0	8.5	6.5	4.5	6.0	3.5	3.0	3.0	2.5	2.0	2.5
10	8.5	7.5	8.0	5.0	4.0	4.5	3.5	3.0	3.0	3.5	2.5	3.0
11	8.5	7.5	8.0	6.0	5.0	5.5	4.0	3.0	3.5	4.5	3.5	4.0
12	8.0	7.0	7.5	6.0	5.0	5.5	4.5	4.0	4.0	4.5	3.0	4.0
13	8.0	7.0	7.5	5.5	5.0	5.5	4.0	4.0	4.0	3.0	2.0	3.0
14	8.0	7.0	7.5	6.5	5.5	6.0	4.5	4.0	4.5	3.0	2.0	2.5
15	8.0	7.0	7.5	6.0	5.5	5.5	4.0	3.5	4.0	2.5	1.5	2.0
16	8.0	7.0	7.5	6.5	6.0	6.0	3.5	3.0	3.5	2.0	1.0	1.5
17	7.5	7.5	7.5	6.5	6.0	6.5	3.5	3.0	3.0	2.5	1.5	2.0
18	8.0	7.5	7.5	7.0	6.0	6.5	3.5	3.0	3.0	3.0	2.0	2.5
19	8.0	7.0	7.5	7.0	6.5	6.5	3.5	3.0	3.5	2.5	2.5	2.5
20	8.0	7.0	7.5	7.5	7.0	7.5	3.5	3.0	3.0	2.5	2.0	2.5
21	8.0	7.5	8.0	7.0	6.5	6.5	4.5	3.5	4.0	3.0	2.5	3.0
22	8.5	7.5	8.0	6.5	6.0	6.0	4.5	4.0	4.5	3.5	2.5	3.0
23	8.5	7.5	8.0	7.5	6.0	7.0	4.5	4.0	4.5	3.5	3.0	3.5
24	8.5	8.0	8.0	7.5	6.0	7.0	4.5	4.0	4.5	3.5	2.5	3.0
25	9.0	8.5	8.5	6.0	5.0	5.5	4.5	4.0	4.0	3.5	3.0	3.0
26	9.5	9.0	9.0	7.0	5.5	6.0	5.0	4.5	4.5	3.5	3.5	3.5
27	9.5	9.0	9.0	7.0	6.0	6.5	4.5	4.0	4.0	4.0	3.5	4.0
28	9.0	8.0	8.5	6.0	5.5	5.5	4.5	3.5	4.0	4.0	3.5	3.5
29	8.5	8.0	8.0	5.5	5.0	5.5	4.5	4.5	4.5	4.0	3.5	4.0
30	8.0	8.0	8.0	5.0	4.5	5.0	4.5	4.0	4.0	4.0	3.5	4.0
31	9.0	8.0	8.5	---	---	---	4.0	4.0	4.0	4.0	3.5	3.5
MONTH	10.0	7.0	8.0	8.5	4.0	6.5	5.0	3.0	4.0	4.5	1.0	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.0	3.5	3.5	4.0	3.5	3.5	7.5	5.5	6.5	8.5	7.0	8.0
2	4.0	3.5	3.5	4.0	3.5	4.0	8.0	6.5	7.0	7.0	7.0	7.0
3	4.5	4.0	4.0	4.5	4.0	4.5	7.0	6.5	6.5	9.0	7.0	8.0
4	5.0	4.0	4.5	5.5	4.5	5.0	6.5	6.0	6.5	9.0	7.5	8.5
5	5.0	4.0	4.5	6.0	5.0	5.5	6.5	5.5	6.0	10.5	8.0	9.0
6	5.0	4.0	4.5	5.5	4.5	5.0	7.0	6.0	6.5	12.0	9.0	10.5
7	5.0	4.0	4.5	5.0	4.0	4.5	7.5	6.0	7.0	12.5	10.5	11.5
8	5.5	4.5	5.0	5.5	5.0	5.0	7.0	6.0	6.5	12.5	10.5	11.5
9	5.5	4.5	5.0	5.5	5.0	5.5	7.0	5.5	6.5	12.5	10.5	11.5
10	6.0	5.0	5.5	6.0	5.0	5.5	7.0	5.5	6.5	12.5	10.0	11.0
11	5.5	5.0	5.5	6.0	5.5	5.5	5.5	4.5	5.0	12.0	10.0	11.0
12	5.5	4.5	5.0	6.0	5.5	6.0	6.0	4.5	5.0	11.5	10.0	11.0
13	5.0	5.0	5.0	6.0	5.0	5.5	7.0	5.0	6.0	10.5	9.5	10.0
14	5.0	4.0	4.5	5.0	4.5	5.0	8.0	6.0	7.0	10.5	10.0	10.0
15	4.5	4.0	4.5	5.0	4.5	4.5	8.0	7.5	7.5	10.0	8.5	9.5
16	4.5	4.0	4.0	5.0	4.5	5.0	8.0	7.0	7.5	9.0	8.0	8.5
17	4.0	3.5	4.0	5.5	4.0	5.0	7.0	5.0	6.5	8.0	7.5	8.0
18	4.0	3.5	3.5	4.0	3.0	3.5	5.0	4.5	5.0	8.0	7.0	7.5
19	4.5	4.0	4.0	4.0	3.0	3.5	5.5	4.5	5.0	8.0	7.0	7.5
20	5.0	4.0	4.5	4.5	3.0	4.0	6.5	4.5	5.5	8.0	6.5	7.0
21	5.0	4.5	4.5	5.0	4.0	4.5	8.0	6.0	7.0	9.0	7.0	8.0
22	4.5	3.0	4.0	5.0	3.5	4.5	9.0	6.5	7.5	9.5	7.5	8.0
23	3.5	3.0	3.5	5.0	4.5	4.5	9.0	7.5	8.0	9.5	7.5	8.5
24	3.5	2.5	3.0	5.0	4.5	4.5	8.0	6.5	7.0	9.0	8.0	8.5
25	3.0	2.0	2.5	5.5	4.0	4.5	8.5	6.0	7.5	8.5	7.5	8.0
26	3.5	2.0	3.0	4.5	4.0	4.5	9.5	7.0	8.0	7.5	7.5	7.5
27	3.5	3.0	3.0	4.5	4.0	4.5	10.5	8.0	9.5	7.5	7.5	7.5
28	4.0	3.5	3.5	5.0	3.5	4.0	10.5	9.0	9.5	8.0	7.5	7.5
29	---	---	---	5.0	3.5	4.5	10.5	8.5	9.5	9.5	7.5	8.5
30	---	---	---	6.0	4.0	5.0	10.0	8.5	9.5	9.0	8.0	8.5
31	---	---	---	7.0	4.5	5.5	---	---	---	8.5	7.5	8.0
MONTH	6.0	2.0	4.0	7.0	3.0	4.5	10.5	4.5	7.0	12.5	6.5	9.0

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	7.5	7.5	13.5	11.5	12.0	11.0	8.5	10.0	---	---	---
2	10.0	6.5	8.0	12.0	11.0	11.0	12.0	9.0	10.0	---	---	---
3	11.0	8.0	9.5	13.0	10.0	11.0	12.5	10.0	11.0	11.5	9.5	10.0
4	12.0	9.5	10.5	11.0	10.0	10.5	13.0	10.5	11.0	---	---	---
5	10.5	9.5	10.0	11.0	10.0	10.5	12.5	10.0	11.0	---	---	---
6	11.5	9.0	10.0	12.0	10.0	10.5	12.0	10.0	10.5	11.5	9.5	10.5
7	11.5	9.5	10.5	10.5	10.0	10.0	12.5	10.0	11.0	12.0	10.0	10.5
8	11.5	10.0	11.0	10.0	9.5	10.0	13.5	10.5	11.5	11.5	9.5	10.5
9	11.5	9.5	10.0	10.0	9.0	9.5	13.0	11.0	12.0	11.5	9.0	10.5
10	11.0	9.0	10.0	12.0	9.5	10.5	11.5	10.5	11.0	11.0	9.0	10.0
11	11.5	9.0	10.0	12.5	10.0	11.0	11.5	10.0	10.5	10.0	9.5	10.0
12	11.5	9.5	10.5	13.0	10.0	11.5	12.0	10.0	10.5	9.5	9.5	9.5
13	12.5	9.5	11.0	13.5	10.5	12.0	10.5	10.0	10.0	9.5	9.0	9.5
14	12.5	10.0	11.0	13.5	11.0	12.0	10.5	10.0	10.0	9.0	8.5	9.0
15	11.0	9.0	9.5	12.5	10.5	11.0	10.5	10.0	10.0	---	---	---
16	9.0	8.0	8.5	10.5	9.5	10.0	10.0	9.5	9.5	10.0	8.5	9.0
17	10.5	8.0	9.0	9.5	9.0	9.5	11.0	8.0	9.5	10.0	8.5	9.0
18	11.0	8.5	9.5	10.0	9.0	9.5	11.5	9.0	10.0	9.5	8.0	9.0
19	11.5	8.5	10.0	11.5	9.0	10.0	12.0	9.5	10.5	10.0	8.5	9.0
20	10.0	9.0	9.5	12.0	9.0	10.5	11.5	9.5	10.0	10.5	9.0	9.5
21	9.5	9.0	9.5	11.5	9.5	10.5	---	---	---	11.0	9.5	10.0
22	10.0	9.0	9.5	11.0	10.0	10.5	11.0	9.0	10.0	11.5	9.0	10.0
23	10.5	8.5	9.5	12.0	9.0	10.5	11.5	10.0	10.5	---	---	---
24	11.5	8.5	10.0	12.0	10.5	11.0	12.0	9.5	10.5	---	---	---
25	12.5	9.5	11.0	11.5	10.5	11.0	11.5	9.5	10.5	9.5	9.5	9.5
26	13.0	10.5	11.5	10.5	9.5	10.0	12.0	10.0	11.0	10.0	9.0	9.5
27	13.0	10.5	11.5	12.0	9.0	10.0	12.5	10.0	11.0	9.5	8.0	9.0
28	13.0	10.5	11.5	12.0	9.5	10.5	12.0	10.0	10.5	10.0	8.5	9.0
29	13.5	11.0	12.0	11.5	9.5	10.0	12.0	10.0	10.0	10.5	8.5	9.5
30	13.5	11.5	12.5	11.5	9.5	10.5	12.5	10.0	11.0	10.5	9.0	9.5
31	---	---	---	11.0	9.5	10.0	13.0	10.5	11.5	---	---	---
MONTH	13.5	6.5	10.0	13.5	9.0	10.5	---	---	---	---	---	---

14139000 BULL RUN RESERVOIR NUMBER ONE NEAR BULL RUN, OR

LOCATION.--Lat 45°28'50", long 122°04'50", in NW 1/4 SW 1/4 sec.16, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, in Mount Hood National Forest, in control house of Bear Creek Dam on Bull Run River, 8.2 mi northeast of Bull Run, and at mile 11.2.

DRAINAGE AREA.--74.6 mi^2.

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1937, published as Bull Run Reservoir. October 1937 to September 1967, published as Lake Ben Morrow. Prior to October 1975, monthend contents only.

REVISED RECORDS.--WSP 814: 1935(M). WSP 1935: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Portland Water Bureau). Prior to Oct. 9, 1930, Oct. 1, 1962, to Dec. 31, 1975, nonrecording gage and Oct. 9, 1930, to Sept. 30, 1962, water-stage recorder at present site and datum.

REMARKS.--Elevations for Feb. 25 to June 11, Sept. 3-7, 26-29 provided by Portland Water Bureau. Lake is formed by concrete dam completed in March 1929 for water supply of city of Portland. Storage began about Apr. 29, 1929; first filling occurred May 15, 1929. Capacity, 26,930 acre-ft at crest of spillway, elevation, 1,036.0 ft; capacity increased in October 1954 to 30,140 acre-ft at elevation 1,044.0 ft by installation of three gates 40 ft wide and 8 ft high. No dead storage. Water is used for power generation by Portland General Electric Co. and municipal supply for city of Portland.

COOPERATION.--Capacity table furnished by Portland Water Bureau.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,600 acre-ft Mar. 31, 1931, elevation, 1,047.40 ft; minimum contents observed, 169 acre-ft Jan. 10, 1960, elevation, 887.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,570 acre-ft May 15, elevation, 1,045.0 ft, provided by Portland Water Bureau; minimum contents, 9,480 acre-ft Sept. 30, elevation, 977.26 ft.

Capacity table (elevation, in feet, and capacity, in acre-feet)

870	0	970	8,050
890	213	990	12,370
910	1,130	1,010	17,950
930	2,680	1,030	24,680
950	4,900	1,048	31,860

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020.81	1033.29	1034.62	1035.44	1038.00	1035.10	1034.60	1034.70	1044.20	1032.24	1012.86	991.20
2	1022.90	1033.96	1034.41	1035.30	1035.58	1035.50	1034.60	1034.90	1044.40	1031.24	1012.10	988.50
3	1024.25	1035.32	1034.42	1035.32	1035.76	1035.90	1035.00	1034.50	1044.70	1030.59	1010.01	985.50
4	1025.66	1034.15	1034.35	1035.28	1035.44	1035.70	1034.30	1036.40	1044.80	1029.85	1008.55	986.50
5	1026.82	1035.50	1034.32	1034.96	1035.25	1035.50	1034.70	1037.20	1044.40	1029.62	1008.31	987.40
6	1026.57	1035.11	1034.51	1034.67	1034.55	1035.40	1034.30	1038.40	1044.00	1029.38	1006.67	984.90
7	1027.53	1035.36	1034.56	1034.49	1034.48	1035.00	1034.50	1039.80	1044.90	1028.94	1004.99	983.80
8	1027.22	1035.13	1034.43	1034.44	1034.43	1035.00	1034.80	1041.10	1044.50	1028.37	1004.56	982.27
9	1028.03	1034.49	1035.21	1034.73	1034.20	1034.90	1034.20	1042.30	1044.10	1027.79	1002.80	981.94
10	1028.82	1035.14	1034.90	1034.52	1034.44	1034.70	1035.00	1043.40	1044.90	1027.34	1001.29	981.76
11	1029.46	1034.77	1034.56	1034.72	1034.23	1034.80	1035.00	1040.50	1044.40	1026.82	1000.97	981.55
12	1030.09	1034.88	1034.57	1034.66	1034.68	1035.40	1034.90	1041.70	1043.37	1025.90	1000.50	981.41
13	1030.73	1034.24	1034.33	1034.67	1034.32	1035.50	1034.80	1043.30	1042.86	1024.76	998.68	981.19
14	1029.94	1034.49	1034.55	1034.58	1035.15	1035.30	1034.30	1043.80	1042.45	1023.37	998.79	981.20
15	1029.54	1034.54	1034.44	1034.76	1035.17	1035.60	1034.50	1045.00	1041.85	1021.84	998.39	981.60
16	1027.46	1035.93	1034.82	1034.67	1035.55	1035.12	1034.80	1044.03	1041.74	1020.59	997.12	982.00
17	1024.56	1035.41	1034.36	1034.67	1034.94	1035.10	1034.10	1044.20	1041.24	1020.09	997.84	982.75
18	1025.21	1035.63	1034.48	1034.58	1034.94	1034.90	1034.40	1044.20	1040.61	1019.99	995.91	983.15
19	1024.52	1035.69	1034.55	1034.65	1034.72	1035.20	1034.80	1044.90	1040.08	1020.73	994.80	983.35
20	1025.07	1036.85	1034.45	1034.61	1034.82	1035.00	1034.50	1044.40	1039.55	1019.65	994.61	983.55
21	1024.06	1036.46	1034.56	1034.68	1034.64	1034.80	1034.50	1044.00	1039.82	1019.61	992.70	983.70
22	1023.78	1036.62	1034.75	1034.66	1034.76	1034.80	1034.50	1044.80	1039.87	1019.21	990.89	983.25
23	1024.28	1036.34	1034.99	1034.68	1034.55	1034.80	1035.00	1044.40	1039.59	1019.22	991.18	981.90
24	1023.48	1035.46	1034.21	1034.71	1034.69	1034.60	1034.70	1044.20	1039.02	1019.07	991.22	980.77
25	1024.03	1035.61	1034.39	1035.46	1035.00	1034.50	1034.70	1044.80	1038.05	1018.86	991.81	979.85
26	1023.51	1035.87	1034.77	1035.74	1034.80	1034.30	1034.70	1044.50	1037.23	1018.50	991.65	979.20
27	1025.07	1037.71	1034.30	1035.63	1034.60	1034.50	1034.70	1044.40	1036.11	1017.65	991.62	978.80
28	1025.24	1036.34	1034.10	1035.80	1034.60	1034.60	1034.70	1044.70	1035.29	1016.50	990.50	978.50
29	1026.29	1035.78	1034.56	1035.20	---	1034.60	1034.70	1044.40	1034.35	1015.06	991.46	978.20
30	1026.77	1035.45	1034.57	1034.95	---	1034.60	1034.70	1044.20	1033.47	1013.85	992.38	977.87
31	1030.77	---	1034.27	1039.18	---	1034.60	---	1044.10	---	1013.47	990.43	---
MAX	1030.77	1037.71	1035.21	1039.18	1038.00	1035.90	1035.00	1045.00	1044.90	1032.24	1012.86	991.20
MIN	1020.81	1033.29	1034.10	1034.44	1034.20	1034.30	1034.10	1034.50	1033.47	1013.47	990.43	977.87
(†)	24960	26720	26270	28170	26400	26400	26440	30180	25970	19040	12480	9610
(‡)	+4430	+1760	-450	+1900	-1770	0	+40	+3740	-4210	-6930	-6560	-2870

CAL YR 1986 MAX 1044.94 MIN 990.02 AC-FT‡ -80
WTR YR 1987 MAX 1045.00 MIN 977.97 AC-FT‡ -10920

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14139700 CEDAR CREEK NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°27'30", long 122°01'50", in NE 1/4 sec.26, T.1 S., R.6 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 5.8 mi north of Brightwood and at mile 2.5.

DRAINAGE AREA.--7.93 mi^2.

PERIOD OF RECORD.--July to November 1964, June 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,960 ft, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 12 to Dec. 4. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--22 years, 67.0 ft^3/s, 114.74 in/yr, 48,540 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft^3/s Dec. 22, 1964, gage height, 7.20 ft, from rating curve extended above 320 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 6.0 ft^3/s Sept. 22-24, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	0930	*505	*3.64	No other peak greater than base discharge.			

Minimum discharge, 6.0 ft^3/s Sept. 22-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	40	70	148	383	169	38	37	60	14	12	7.1
2	46	30	60	115	214	203	36	53	45	13	11	7.3
3	38	26	50	125	148	198	38	51	37	13	11	7.4
4	32	24	40	101	100	152	39	40	34	13	11	7.1
5	29	28	43	78	77	116	40	36	32	18	10	6.9
6	26	35	41	60	64	101	56	33	30	16	10	6.7
7	23	86	35	50	57	78	54	31	28	14	9.9	6.7
8	21	70	32	43	52	63	98	29	27	14	9.6	6.6
9	20	54	29	38	47	61	73	28	25	13	9.5	6.4
10	18	45	28	35	43	58	110	27	24	14	9.5	6.3
11	16	40	26	33	44	63	141	26	23	13	9.6	6.4
12	15	35	26	40	39	130	119	65	22	12	9.2	6.7
13	14	33	40	40	66	160	90	44	21	12	10	6.7
14	13	36	49	37	103	197	73	43	20	11	19	8.9
15	12	31	40	33	83	136	62	39	20	11	13	15
16	12	100	34	30	103	102	54	35	20	11	12	9.7
17	13	220	32	28	142	147	79	33	19	11	11	7.8
18	14	150	30	28	105	137	75	32	18	24	9.9	7.2
19	13	160	31	27	84	103	64	30	17	23	9.6	7.0
20	12	200	28	25	70	91	58	28	17	16	9.2	6.7
21	12	250	27	25	61	82	54	27	26	19	8.9	6.4
22	11	310	34	24	61	69	49	26	22	35	8.6	6.3
23	11	270	52	26	54	71	44	25	19	21	8.4	6.0
24	10	190	53	81	46	67	40	24	17	18	8.3	6.1
25	10	140	48	147	41	61	37	24	16	16	8.2	7.6
26	22	250	63	218	37	62	34	23	16	15	7.9	21
27	24	350	48	199	34	53	33	24	15	14	7.9	9.9
28	21	200	42	173	35	47	31	24	14	14	7.8	8.0
29	19	120	57	127	---	42	30	23	14	13	7.5	7.2
30	32	90	73	103	---	39	31	42	14	12	7.4	6.8
31	70	---	54	248	---	37	---	70	---	12	7.2	---
TOTAL	690	3613	1315	2486	2393	3095	1780	1072	712	475	304.1	235.9
MEAN	22.3	120	42.4	80.2	85.5	99.8	59.3	34.6	23.7	15.3	9.81	7.86
MAX	70	350	73	248	383	203	141	70	60	35	19	21
MIN	10	24	26	24	34	37	30	23	14	11	7.2	6.0
AC-FT	1370	7170	2610	4930	4750	6140	3530	2130	1410	942	603	468

CAL YR 1986 TOTAL 21011.1 MEAN 57.6 MAX 870 MIN 7.9 AC-FT 41680
WTR YR 1987 TOTAL 18171.0 MEAN 49.8 MAX 383 MIN 6.0 AC-FT 36040

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°26'38", long 122°06'20", in NE 1/4 NE 1/4 sec.31, T.1 S., R.6 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 6.2 mi northeast of Bull Run, and at mile 0.6.

DRAINAGE AREA.--15.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 990 ft from topographic map.

REMARKS.--Estimated daily discharges: June 26-28, July 1. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--13 years, 108 ft^3/s, 95.24 in/yr, 78,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,520 ft^3/s Dec. 2, 1977, gage height, 8.32 ft, from rating curve extended above 1,200 ft^3/s; minimum discharge, 7.8 ft^3/s Sept. 10, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	0030	*1,110	*6.15				

Minimum discharge, 7.8 ft^3/s Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	72	143	217	852	236	68	45	79	15	16	9.7
2	86	57	112	204	490	383	68	63	65	14	16	9.0
3	70	48	91	201	419	417	70	68	58	14	16	9.0
4	59	41	78	172	363	378	72	55	53	14	15	8.6
5	51	41	73	141	241	231	70	49	47	17	14	8.4
6	45	59	72	113	180	197	97	42	44	18	14	8.4
7	39	186	60	94	159	148	75	40	40	17	14	8.3
8	36	156	55	81	148	119	118	38	37	17	14	8.3
9	33	140	50	72	130	104	106	35	35	16	13	8.3
10	30	112	46	65	116	96	134	31	33	16	13	8.1
11	27	93	43	59	115	96	191	30	31	16	13	8.0
12	25	82	42	66	108	206	180	84	29	16	13	8.3
13	24	73	57	70	146	272	144	66	27	15	14	8.3
14	23	76	73	68	245	388	117	64	27	15	24	9.9
15	22	65	67	62	202	339	99	59	26	14	19	19
16	21	161	61	57	229	234	81	58	25	14	17	12
17	20	470	56	55	358	261	109	56	24	13	15	9.4
18	22	288	52	52	313	311	111	52	25	22	14	8.9
19	20	266	52	49	277	226	104	48	23	30	14	8.7
20	19	392	48	46	197	184	94	47	24	18	13	8.6
21	18	457	45	45	171	173	88	44	37	18	13	8.5
22	17	426	50	44	165	147	80	38	32	36	13	8.3
23	16	444	71	45	156	136	71	35	28	33	13	8.1
24	16	297	76	111	105	134	64	36	26	29	12	8.1
25	16	199	76	219	71	124	58	35	20	27	12	9.1
26	23	361	93	367	65	118	51	35	19	26	12	31
27	44	654	83	411	58	111	47	32	17	24	11	19
28	34	502	76	379	52	100	43	30	15	22	11	11
29	28	321	84	277	---	84	40	30	15	19	11	10
30	45	195	113	218	---	72	40	41	15	17	11	10
31	91	---	93	486	---	69	---	76	---	17	11	---
TOTAL	1130	6734	2191	4546	6131	6094	2690	1462	976	599	431	310.3
MEAN	36.5	224	70.7	147	219	197	89.7	47.2	32.5	19.3	13.9	10.3
MAX	110	654	143	486	852	417	191	84	79	36	24	31
MIN	16	41	42	44	52	69	40	30	15	13	11	8.0
AC-FT	2240	13360	4350	9020	12160	12090	5340	2900	1940	1190	855	615
CFSM	2.37	14.6	4.59	9.52	14.2	12.8	5.82	3.06	2.11	1.25	.90	.67
IN.	2.73	16.27	5.29	10.98	14.81	14.72	6.50	3.53	2.36	1.45	1.04	.75

CAL YR 1986 TOTAL 36121.1 MEAN 99.0 MAX 1610 MIN 9.5 AC-FT 71650 CFSM 6.43 IN. 87.25
WTR YR 1987 TOTAL 33294.3 MEAN 91.2 MAX 852 MIN 8.0 AC-FT 66040 CFSM 5.92 IN. 80.43

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1978 to current year.
pH: November 1980 to September 1981.
WATER TEMPERATURE: October 1978 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1986.

INSTRUMENTATION.--Water-quality monitor, prior to October 1980 conductivity/temperature recorder.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 44 microsiemens Sept. 16-19, 1981; minimum, 9 microsiemens Jan. 4, 1983.
WATER TEMPERATURE: Maximum, 17.0°C July 18-20, 1979, Aug. 9-12, 1981, July 19, 20, 1985, July 14, 1987; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily, 212 mg/L Nov. 7, 1985; minimum, 0 mg/L on many days.
SEDIMENT DISCHARGE: Maximum daily, 794 tons Nov. 7, 1985; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 40 microsiemens Aug. 28 to Sept. 2, Sept. 5-14, 21, 22, 24; minimum, 18 microsiemens Nov. 17, 20-22, 27, Feb. 1, Mar. 13, 14.
WATER TEMPERATURE: Maximum, 17.0°C July 14; minimum, 1.0°C Jan. 15-17.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY	
23	22	22	27	26	26	30	28	27	30	25	27
24	23	23	27	26	26	28	27	28	27	25	26
25	24	24	28	27	27	29	28	28	27	25	26
26	25	25	30	28	28	30	29	29	27	26	26
27	26	26	29	27	28	30	30	30	27	26	27
28	27	27	28	27	28	30	30	30	28	27	28
28	28	28	27	22	24	31	30	30	29	28	28
29	28	29	24	22	23	31	31	31	30	29	29
29	29	29	22	22	22	31	31	31	30	29	30
30	29	29	23	22	22	32	31	32	31	30	31
30	30	30	23	22	23	32	32	32	32	31	32
31	30	30	23	23	23	33	32	33	33	31	32
31	30	31	24	24	24	33	31	32	31	31	31
31	31	31	24	24	24	31	31	31	32	31	31
32	31	31	25	24	24	31	30	31	32	32	32
32	31	32	26	20	23	31	31	31	33	32	32
33	32	32	19	18	18	31	31	31	33	33	33
33	33	33	21	19	20	32	31	31	34	33	33
33	33	33	21	20	20	32	31	32	34	34	34
33	33	33	20	18	19	32	32	32	34	34	34
34	33	33	19	18	19	33	32	33	[illegible]	34	35
34	34	34	19	18	19	33	32	33	35	35	35
34	33	34	20	19	20	32	31	32	35	35	35
35	34	34	20	19	20	31	30	31	35	29	32
35	35	35	21	20	20	31	30	30	29	25	27
37	34	35	21	19	19	30	30	30	25	24	25
35	32	33	24	18	22	30	30	30	25	24	24
32	32	32	24	24	24	31	30	30	25	24	24
32	31	32	26	24	25	31	29	30	26	25	26
31	30	31	27	26	26	29	28	[illegible]	26	26	26
30	27	28	---	---	---	30	29	[illegible]	26	21	25
37	22	30	30	18	23	33	27	31	35	21	30

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	FEBRUARY			MARCH			APRIL			MAY	
MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
21	18	19	27	20	23	30	28	29	32	31	31
22	21	21	21	19	20	30	29	29	31	29	30
23	22	23	20	19	19	29	28	29	31	29	30
25	23	24	20	19	20	29	29	29	32	30	31
26	25	25	21	20	21	29	29	29	33	31	32
27	26	26	21	21	21	29	28	28	34	32	33
27	27	27	22	21	22	29	28	28	34	33	33
28	27	28	22	21	22	28	26	27	34	33	34
27	27	27	23	22	23	27	26	27	35	34	34
28	27	28	24	23	23	27	23	26	35	34	35
28	27	28	24	23	24	24	22	23	36	35	36
28	28	28	23	20	21	22	22	22	35	29	31
28	26	27	20	18	20	23	22	23	31	30	30
26	24	24	19	18	18	25	23	24	32	30	31
25	24	25	20	19	19	25	25	25	31	30	30
24	23	24	21	20	21	26	25	26	31	30	30
23	22	22	22	20	21	26	24	25	31	31	31
23	22	23	21	20	20	24	24	24	32	31	31
24	23	24	22	21	21	25	24	24	33	32	32
25	24	25	23	22	22	26	25	25	34	33	33
26	25	25	23	22	23	26	26	26	35	33	34
26	25	25	24	23	24	28	26	27	36	35	35
25	25	25	29	24	26	28	27	27	37	36	36
25	25	25	24	24	24	29	27	28	37	36	37
26	25	26	24	24	24	30	28	29	38	36	36
27	26	26	24	24	24	31	29	30	37	37	37
28	27	27	25	24	25	32	31	31	37	37	37
28	27	28	26	25	25	33	32	32	37	37	37
---	---	---	27	25	26	34	32	33	38	37	37
---	---	---	28	26	27	33	32	33	38	33	37
---	---	---	29	28	28	---	---	---	33	29	31
28	18	25	29	18	22	34	22	27	38	29	33

	JUNE			JULY			AUGUST			SEPTEMBER	
MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
29	28	29	37	36	37	38	36	36	40	39	40
31	29	30	37	36	36	39	36	37	40	39	39
33	31	32	38	36	37	38	37	37	39	38	39
33	33	33	39	36	38	38	37	38	39	39	39
33	32	33	37	35	36	38	37	37	40	33	39
34	33	33	35	34	35	38	37	37	40	39	40
36	34	34	36	36	36	38	38	38	40	39	39
36	35	35	37	36	36	39	38	39	40	39	39
36	35	35	35	33	34	39	38	39	40	39	39
36	35	36	35	34	35	39	38	38	40	39	39
37	36	36	37	35	36	38	37	38	40	39	39
39	36	36	38	37	37	39	38	38	40	39	39
37	36	37	38	37	38	39	38	38	40	38	39
37	36	37	39	38	38	38	36	37	40	38	39
37	36	36	---	35	---	---	35	---	39	37	38
36	35	35	35	34	35	---	36	---	38	37	38
36	35	35	38	37	37	37	36	37	39	38	38
37	35	36	38	34	37	38	37	37	39	38	38
37	36	36	36	34	35	38	37	38	39	38	38
36	35	36	36	35	36	38	37	37	39	38	39
35	34	35	37	35	37	38	37	38	40	38	39
36	34	35	34	30	31	38	37	38	40	39	39
37	35	35	34	32	33	39	38	38	39	38	39
36	35	36	36	33	34	39	38	39	40	38	39
37	36	37	36	33	34	39	38	39	39	37	39
38	37	37	37	34	35	39	38	39	38	36	36
38	36	37	37	34	35	39	39	39	37	36	37
37	36	37	35	35	35	40	39	39	38	37	37
38	37	37	36	35	35	40	39	39	38	38	38
37	37	37	36	35	36	40	39	40	38	38	38
---	---	---	39	35	36	---	39	---	---	---	---
39	28	35	---	30	---	---	35	---	40	36	39

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	8.5	9.0	8.5	7.5	8.0	5.5	5.0	5.5	4.5	4.0	4.5
2	8.5	7.5	8.0	7.5	7.0	7.5	5.0	4.5	5.0	4.5	4.0	4.5
3	8.5	8.0	8.0	7.5	7.0	7.5	4.5	4.0	4.5	5.0	4.5	5.0
4	9.0	8.0	8.5	7.5	7.0	7.0	4.5	4.0	4.5	5.0	4.5	5.0
5	9.0	8.5	8.5	7.5	7.0	7.5	5.0	4.5	5.0	4.5	4.0	4.0
6	9.5	9.0	9.0	7.5	7.0	7.5	5.0	4.0	4.5	4.0	3.0	3.5
7	9.5	9.0	9.0	7.0	7.0	7.0	4.0	3.5	3.5	3.0	2.5	3.0
8	9.0	8.5	9.0	7.0	6.5	7.0	3.5	3.0	3.0	2.5	2.5	2.5
9	9.0	8.5	9.0	7.0	5.5	6.5	3.0	2.5	2.5	2.5	2.0	2.0
10	8.5	8.0	8.5	5.5	4.5	5.0	2.5	2.5	2.5	3.0	2.5	2.5
11	8.5	8.0	8.0	6.5	5.5	6.0	3.0	2.5	2.5	3.5	3.0	3.0
12	8.0	7.5	8.0	6.5	5.5	6.0	4.0	3.0	3.5	4.0	3.5	4.0
13	7.5	7.0	7.5	6.0	5.0	5.5	4.5	3.5	4.0	4.0	2.5	3.0
14	7.5	6.5	7.0	6.5	6.0	6.5	5.0	4.5	4.5	2.5	2.0	2.5
15	7.5	7.0	7.0	6.0	5.5	6.0	4.5	3.5	4.0	2.0	1.0	1.5
16	7.5	7.0	7.5	6.5	6.0	6.0	3.5	3.0	3.0	1.0	1.0	1.0
17	8.0	7.5	7.5	6.5	6.5	6.5	3.0	2.5	3.0	1.5	1.0	1.0
18	8.5	8.0	8.0	7.0	6.5	6.5	3.0	2.5	2.5	2.5	1.5	2.0
19	8.0	7.5	8.0	7.0	7.0	7.0	3.5	3.0	3.0	2.5	2.0	2.0
20	7.5	7.0	7.5	7.5	7.0	7.5	3.0	3.0	3.0	2.0	1.5	1.5
21	7.5	7.0	7.5	7.0	6.5	7.0	4.0	3.0	3.5	2.0	2.0	2.0
22	7.5	7.0	7.5	7.0	6.5	6.5	5.0	4.0	4.5	2.5	2.0	2.5
23	8.0	7.5	7.5	7.5	6.5	7.0	5.0	4.5	5.0	3.0	2.5	3.0
24	8.5	7.5	8.0	7.5	6.5	7.0	4.5	4.5	4.5	3.0	2.5	3.0
25	9.5	8.5	9.0	6.0	5.5	6.0	4.5	4.0	4.0	3.5	3.0	3.5
26	9.5	9.0	9.5	7.0	6.0	6.5	5.0	4.5	5.0	4.0	3.5	4.0
27	10.0	9.5	9.5	7.0	6.0	6.5	4.5	3.5	4.0	4.5	4.0	4.5
28	9.5	8.5	9.0	6.5	6.0	6.5	4.0	3.5	3.5	4.5	4.0	4.0
29	8.5	8.5	8.5	6.0	5.5	6.0	5.0	4.0	4.5	5.0	4.5	4.5
30	8.5	8.5	8.5	5.5	5.0	5.5	5.0	4.0	4.5	4.5	4.0	4.5
31	9.0	8.5	8.5	---	---	---	4.5	4.0	4.0	4.5	4.0	4.0
MONTH	10.0	6.5	8.0	8.5	4.5	6.5	5.5	2.5	4.0	5.0	1.0	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.0	4.5	4.0	4.0	4.0	7.0	5.5	6.0	9.0	7.0	8.0
2	5.0	4.5	4.5	4.5	4.0	4.5	7.0	6.0	6.5	7.5	6.5	7.0
3	5.5	4.5	5.0	5.5	4.5	5.0	7.0	6.0	6.5	9.0	6.5	7.5
4	5.5	4.5	5.0	6.0	5.0	5.5	6.5	6.0	6.0	9.5	7.5	8.5
5	5.5	5.0	5.0	6.0	5.5	5.5	6.0	5.5	6.0	10.5	8.0	9.0
6	5.5	4.5	5.0	5.5	5.0	5.5	6.5	5.5	6.0	12.0	9.5	10.5
7	5.5	4.5	5.0	5.0	4.5	5.0	7.0	5.5	6.5	12.5	10.5	11.5
8	6.0	5.0	5.5	5.5	5.0	5.5	7.0	5.5	6.0	13.0	11.0	12.0
9	6.0	5.0	5.5	6.0	5.5	5.5	6.5	5.0	6.0	13.0	11.5	12.5
10	6.5	5.5	6.0	6.5	5.5	6.0	6.5	5.5	6.0	13.0	11.0	12.0
11	6.0	5.5	6.0	6.0	6.0	6.0	5.5	4.5	5.0	13.0	11.0	12.0
12	6.0	5.0	5.5	6.5	6.0	6.0	6.0	4.5	5.0	12.5	10.0	11.0
13	6.0	5.5	6.0	6.0	5.5	6.0	7.0	4.5	6.0	10.0	9.5	9.5
14	5.5	5.0	5.5	5.5	5.0	5.5	7.5	5.0	6.5	10.0	9.5	10.0
15	5.5	5.0	5.0	5.5	5.0	5.0	7.5	6.5	7.0	10.0	8.5	9.5
16	5.0	5.0	5.0	5.5	5.0	5.5	7.5	6.5	7.0	9.0	8.0	8.5
17	5.0	4.0	4.5	5.5	5.0	5.5	7.0	5.0	6.0	8.5	7.5	8.0
18	5.0	4.0	4.5	4.5	4.0	4.0	5.0	4.5	4.5	8.0	7.0	7.5
19	5.0	4.5	5.0	4.5	3.5	4.0	6.0	4.0	5.0	8.0	7.0	7.5
20	5.5	4.5	5.0	5.0	3.5	4.0	6.5	4.0	5.5	8.5	6.5	7.5
21	5.0	5.0	5.0	5.5	4.0	4.5	7.5	5.5	6.5	9.0	7.0	8.0
22	5.0	3.5	4.5	5.0	4.0	4.5	8.0	6.0	7.0	9.5	8.0	8.5
23	4.0	3.5	4.0	5.0	5.0	5.0	8.5	7.0	7.5	10.0	8.0	9.0
24	4.0	3.0	3.5	5.5	4.5	5.0	7.5	6.0	7.0	9.5	9.0	9.0
25	3.0	2.5	3.0	5.5	4.0	4.5	8.0	6.0	7.0	9.0	8.0	8.5
26	3.5	2.5	3.0	5.0	4.0	4.5	9.5	7.0	8.0	8.0	7.5	8.0
27	3.5	3.5	3.5	5.0	4.0	4.5	10.5	8.0	9.5	8.0	7.5	8.0
28	4.5	3.5	4.0	5.0	3.5	4.0	10.5	9.5	10.0	8.5	7.5	8.0
29	---	---	---	5.0	3.5	4.5	10.5	9.0	10.0	10.0	7.5	8.5
30	---	---	---	5.5	4.0	4.5	10.5	8.5	9.5	9.5	8.0	9.0
31	---	---	---	6.0	4.5	5.5	---	---	---	8.5	7.5	8.0
MONTH	6.5	2.5	5.0	6.5	3.5	5.0	10.5	4.0	6.5	13.0	6.5	9.0

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	7.0	7.5	16.5	14.5	15.5	13.0	11.5	12.5	15.0	14.0	14.5
2	10.0	6.5	8.5	15.0	14.0	14.5	13.5	11.5	12.5	14.5	13.5	14.0
3	11.5	8.5	10.0	15.5	13.5	14.5	14.5	12.0	13.5	13.5	13.0	13.5
4	12.5	10.0	11.5	14.5	13.0	14.0	15.0	13.0	14.0	13.5	12.0	13.0
5	11.5	10.0	10.5	13.0	12.0	12.5	14.5	13.0	14.0	13.5	12.0	13.0
6	12.0	9.5	10.5	13.0	12.0	12.5	14.0	13.0	13.5	13.5	12.5	13.0
7	12.5	10.5	11.5	13.0	12.0	12.5	15.0	12.5	14.0	13.5	12.5	13.0
8	12.5	11.5	12.0	12.5	12.0	12.0	15.5	13.5	14.5	13.5	12.5	13.0
9	12.0	10.5	11.0	12.0	11.5	12.0	16.0	14.0	15.0	13.0	12.5	13.0
10	12.5	10.5	11.5	13.5	11.5	12.5	15.0	14.0	14.0	13.0	12.0	12.5
11	12.5	10.5	11.5	15.0	12.0	13.5	14.0	13.5	14.0	12.5	12.5	12.5
12	13.5	11.0	12.0	16.0	13.0	14.5	14.0	13.0	13.5	12.5	12.5	12.5
13	14.0	11.5	13.0	16.5	14.0	15.0	13.5	13.0	13.5	12.5	12.0	12.5
14	14.0	12.0	13.0	17.0	14.5	15.5	13.0	12.5	12.5	12.0	11.5	12.0
15	12.5	11.0	11.5	16.0	14.0	15.0	12.5	12.0	12.5	11.5	10.5	11.0
16	11.0	10.0	10.0	14.0	13.0	13.5	12.5	11.5	12.0	10.5	10.0	10.5
17	11.5	9.5	10.5	13.0	12.0	12.5	12.5	11.0	12.0	10.5	9.5	10.0
18	12.5	10.0	11.0	12.0	11.5	12.0	13.0	11.5	12.5	10.5	9.5	10.0
19	13.0	10.5	12.0	13.0	11.0	12.0	13.5	11.5	12.5	10.5	9.5	10.0
20	12.0	11.5	11.5	14.0	11.5	12.5	13.0	12.0	12.5	11.0	10.0	10.5
21	11.0	10.5	10.5	14.0	12.0	13.0	13.0	11.5	12.5	11.5	10.5	11.0
22	12.0	10.0	10.5	13.0	12.0	12.0	13.0	11.5	12.5	12.0	10.5	11.0
23	12.0	10.0	11.0	13.0	11.5	12.5	13.5	12.5	13.0	12.0	11.0	11.5
24	13.5	10.5	12.0	13.5	12.5	13.0	13.5	12.5	13.0	11.5	11.5	11.5
25	14.5	11.5	13.0	14.0	13.0	13.5	14.0	12.5	13.5	11.5	11.5	11.5
26	15.5	13.0	14.0	13.0	12.5	12.5	14.5	13.0	13.5	11.5	10.5	11.0
27	16.0	13.5	14.5	13.0	12.0	12.5	14.5	13.0	14.0	10.5	9.5	10.0
28	16.0	13.5	15.0	14.0	12.0	13.0	14.0	13.0	13.5	10.0	9.5	10.0
29	16.5	14.0	15.5	14.0	12.5	13.5	14.0	12.5	13.5	10.5	9.5	10.0
30	16.5	15.0	15.5	13.5	12.5	13.0	14.5	13.0	14.0	10.5	9.5	10.0
31	---	---	---	13.0	12.0	12.5	15.0	13.5	14.5	---	---	---
MONTH	16.5	6.5	11.5	17.0	11.0	13.0	16.0	11.0	13.5	15.0	9.5	11.5
YEAR	17.0	1.0	8.0									

14139900 BULL RUN RESERVOIR NUMBER TWO NEAR BULL RUN, OR

LOCATION.--Lat 45°26'55", long 122°08'45", on line between secs.25 and 26, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on headworks dam on Bull Run River, 4.4 mi northeast of Bull Run, and at mile 6.5.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--December 1961 to current year. Prior to October 1975, monthend contents only.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Portland Water Bureau). Prior to Dec. 31, 1975, nonrecording gage at same site and datum.

REMARKS.--Elevations for Feb. 13-16, 25, 26, Mar. 31, Apr. 1, Aug. 14-19 furnished by Portland Water Bureau. Reservoir is formed by earth and rockfill dam with concrete spillway built by Portland Water Bureau. Storage began about Dec. 20, 1961; first filling occurred Dec. 24, 1961. Capacity, 20,990 acre-ft at crest of spillway, elevation, 860.0 ft. Dead storage negligible. Water is used as municipal supply for city of Portland and for power generation by Portland General Electric Co.

COOPERATION.--Capacity table furnished by Portland Water Bureau.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 23,660 acre-ft Dec. 22, 1964, elevation, 866.00 ft; no contents at times during low-flow periods.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 22,030 acre-ft Feb. 1, elevation, 862.34 ft; minimum contents, 16,600 acre-ft Sept. 22, elevation, 849.86 ft.

Capacity table (elevation, in feet, and capacity in acre-feet)

752	0	830	10,000
770	234	850	16,800
790	1,860	870	25,500
810	5,070		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	856.58	857.24	859.38	860.05	861.45	859.61	859.50	858.80	859.57	859.58	858.09	850.81
2	856.38	857.86	859.40	859.26	860.79	860.68	859.57	859.25	859.81	859.46	858.00	851.57
3	856.09	857.50	859.70	859.08	860.11	861.06	859.71	859.53	859.79	859.43	858.45	852.54
4	855.70	858.74	859.77	859.27	859.29	860.23	859.69	858.81	858.88	859.57	858.43	851.42
5	855.27	858.27	859.77	859.23	859.44	859.96	859.50	859.42	859.66	859.67	857.71	850.57
6	855.95	859.82	859.63	859.48	859.36	859.43	859.91	858.76	859.68	859.60	858.12	851.56
7	855.49	859.18	859.57	859.69	859.75	859.44	859.82	857.85	858.72	859.67	858.42	852.02
8	855.99	859.21	859.62	859.61	859.67	859.60	859.10	857.01	859.03	859.57	857.75	851.68
9	855.39	859.59	858.90	859.48	859.87	859.59	859.76	856.13	859.44	859.60	858.00	851.66
10	854.82	859.08	858.70	859.55	859.74	859.66	859.06	855.28	858.61	859.70	858.26	851.44
11	854.24	859.63	858.45	859.24	859.88	859.54	859.22	858.73	858.80	859.59	858.01	851.23
12	853.63	859.68	858.18	859.56	859.27	858.51	859.04	859.01	859.38	859.47	857.62	851.34
13	852.95	859.50	859.00	859.70	859.40	859.20	859.48	858.70	859.53	859.40	858.33	851.43
14	853.57	859.54	859.44	859.71	858.90	860.67	859.74	859.40	859.59	859.49	857.60	851.46
15	853.73	859.54	859.73	859.47	859.00	859.77	859.69	859.56	859.73	859.70	858.30	851.62
16	855.46	859.88	859.38	859.33	859.00	858.84	859.51	859.53	859.69	859.90	858.00	851.65
17	857.72	860.81	859.55	859.00	859.24	859.60	859.16	859.47	859.74	859.82	857.70	851.18
18	857.26	860.79	859.20	858.64	859.22	859.17	859.71	859.88	859.75	859.81	858.20	850.87
19	857.64	860.40	858.89	858.16	859.65	859.38	859.51	859.15	859.67	859.17	858.30	850.70
20	857.09	861.08	858.54	858.74	859.66	859.12	859.49	859.37	859.73	859.48	857.58	850.40
21	857.63	860.93	858.19	859.02	859.70	859.43	859.19	859.69	859.68	859.25	857.96	849.97
22	857.64	861.02	858.23	859.26	859.66	859.62	859.69	858.85	859.66	859.22	858.44	849.96
23	857.08	860.92	859.05	859.07	859.49	859.47	859.39	859.33	859.65	858.92	857.72	850.30
24	857.59	860.65	859.46	858.76	859.46	859.67	859.39	859.77	859.62	858.43	857.06	850.64
25	856.99	859.82	859.52	859.63	859.80	859.51	859.26	859.16	859.73	858.04	856.11	851.11
26	857.61	860.82	859.46	860.87	859.80	859.44	859.24	859.58	859.60	857.94	855.48	851.67
27	857.23	861.37	859.61	860.68	859.40	859.72	859.13	859.94	859.66	858.02	854.88	852.12
28	857.56	860.94	859.71	860.23	859.25	859.63	859.04	859.03	859.59	858.20	854.71	852.20
29	857.00	860.09	859.50	859.51	---	859.58	858.87	859.55	859.61	858.46	853.45	852.12
30	857.62	859.47	859.41	858.95	---	859.62	858.69	859.87	859.43	858.72	852.09	851.85
31	857.45	---	859.62	861.54	---	859.00	---	860.00	---	858.33	852.33	---
MAX	857.72	861.37	859.77	861.54	861.45	861.06	859.91	860.00	859.81	859.90	858.45	852.54
MIN	852.95	857.24	858.18	858.16	858.90	858.51	858.69	855.28	858.61	857.94	852.09	849.96
(†)	19880	20770	20830	21680	20670	20560	20420	21000	20750	20270	17730	17540
(‡)	+360	+890	+60	+850	-1010	-110	-140	+580	-250	-480	-2540	-190

CAL YR 1986 MAX 863.86 MIN 848.47 AC-FT‡ -60
WTR YR 1987 MAX 861.54 MIN 849.96 AC-FT‡ -1980

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14140001 BULL RUN RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°26′15″, long 122°10′40″, in NE 1/4 SW 1/4 sec.34, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on left bank 1.8 mi downstream from Bull Run Reservoir Number Two, 2.7 mi northeast of Bull Run, and at mile 4.7.

DRAINAGE AREA.--107 mi².

PERIOD OF RECORD.--September 1907 to current year. Records for January 1895 to August 1907, published in WSP 370, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1288: 1910-11, 1913, 1920-23, 1926, 1929. WSP 1318: 1919(M). WSP 1568: 1952. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 567.90 ft above National Geodetic Vertical Datum of 1929 (levels by Portland Water Bureau). Prior to July 27, 1909, nonrecording gage at site 1.5 mi upstream at different datum. July 27, 1909, to Sept. 30, 1959, water-stage recorder at site 2.5 mi upstream at different datums.

REMARKS.--Estimated daily discharges: June 1-8. Records good except those below 10 ft³/s, which are fair. Flow regulated since 1915 by Bull Run Lake, capacity, 12,270 acre-ft, since 1929 by Bull Run Reservoir Number One (station 14139000), since 1958 by North Fork Reservoir, capacity, 1,030 acre-ft, and since 1961 by Bull Run Reservoir Number Two (station 14139900). All records given herein include flow diverted from Bull Run Reservoir Number Two for city of Portland, and that used by Portland General Electric Co. for power generation, which returns to Bull Run River downstream from station. Total diversion, 136,400 acre-ft of which 65.3 acre-ft was used for power generation and returned to Bull Run River.

COOPERATION.--Records of daily diversion furnished by Portland Water Bureau.

AVERAGE DISCHARGE.--80 years, 777 ft³/s, 98.61 in/yr, 562,900 acre-ft/yr, adjusted for storage in Bull Run Reservoir Number One since 1929 and Bull Run Reservoir Number Two since 1961.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 24,800 ft³/s Dec. 22, 1964, gage height, 17.21 ft, from rating curve extended above 8,800 ft³/s on basis of computation of peak flow over dam; minimum discharge, 1.1 ft³/s Oct. 4, 1974.

Combined flow, maximum discharge, 25,100 ft³/s Dec. 22, 1964; minimum daily, 63 ft³/s Aug. 13-16, 1926.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 7,040 ft³/s Feb. 1, gage height, 10.97 ft; minimum discharge, 1.8 ft³/s several days in September.

Combined flow, maximum discharge, 7,200 ft³/s Feb. 1; minimum daily, 82 ft³/s Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	167	1310	1260	6070	1320	415	430	492	333	358	325
2	170	[illegible]	871	1630	3440	1700	464	[illegible]	[illegible]	[illegible]	[illegible]	309
3	170	[illegible]	696	[illegible]	[illegible]	2440	522	[illegible]	[illegible]	[illegible]	[illegible]	232
4	170	221	610	[illegible]	1660	2350	534	[illegible]	[illegible]	246	[illegible]	236
5	169	186	586	1100	[illegible]	1670	483	189	264	191	281	191
6	170	210	566	817	1070	1560	621	226	316	[illegible]	257	199
7	167	1410	472	[illegible]	726	[illegible]	608	282	284	211	[illegible]	204
8	176	1040	466	[illegible]	774	[illegible]	[illegible]	264	265	238	[illegible]	[illegible]
9	177	891	413	[illegible]	[illegible]	843	[illegible]	260	[illegible]	[illegible]	[illegible]	[illegible]
10	177	686	460	453	[illegible]	792	[illegible]	251	247	196	[illegible]	174
11	177	505	439	[illegible]	[illegible]	825	1410	[illegible]	[illegible]	239	229	171
12	172	494	438	[illegible]	[illegible]	1560	1330	[illegible]	[illegible]	[illegible]	[illegible]	176
13	174	[illegible]	[illegible]	[illegible]	[illegible]	1540	927	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	180	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	861	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	178	434	373	469	1010	[illegible]	682	147	266	331	198	172
16	179	991	465	[illegible]	[illegible]	1520	653	455	[illegible]	[illegible]	376	82
17	[illegible]	[illegible]	[illegible]	468	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	169	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	164	[illegible]	445	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	263	[illegible]
20	168	3240	461	[illegible]	851	1280	738	[illegible]	258	236	268	155
21	178	3260	439	[illegible]	[illegible]	[illegible]	616	[illegible]	188	235	267	169
22	177	3140	388	[illegible]	[illegible]	[illegible]	[illegible]	274	[illegible]	240	249	[illegible]
23	168	3180	[illegible]	[illegible]	[illegible]	[illegible]	553	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	168	2540	[illegible]	[illegible]	592	773	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	168	1820	610	1070	984	800	478	200	321	248	277	110
26	176	2200	725	1960	[illegible]	733	431	[illegible]	333	328	[illegible]	[illegible]
27	[illegible]	[illegible]	703	[illegible]	[illegible]	[illegible]	429	185	336	[illegible]	[illegible]	[illegible]
28	[illegible]	3580	613	[illegible]	457	[illegible]	438	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	176	2460	608	[illegible]	---	[illegible]	432	367	[illegible]	[illegible]	[illegible]	[illegible]
30	176	1660	[illegible]	[illegible]	---	[illegible]	436	[illegible]	332	[illegible]	380	163
31	169	---	592	[illegible]	---	467	---	[illegible]	---	238	321	---
TOTAL	5347	45555	17516	28067	33669	36816	20657	9211	8475	7658	8194	4826
MEAN	172	1518	565	905	1202	1188	689	297	282	247	264	161
MAX	180	4120	1310	2240	6070	2440	1410	660	492	333	376	325
MIN	164	156	309	377	451	450	415	182	188	191	176	82
AC-FT	10610	90360	34740	55670	66780	73020	40970	18270	16810	15190	16250	9570
MEAN†	250	1560	559	950	1150	1190	687	368	207	127	116	109
CFSM†	2.34	14.6	5.22	8.88	10.7	11.1	6.42	3.44	1.93	1.19	1.08	1.02
IN.†	2.70	16.30	6.02	10.24	11.21	12.78	7.16	3.97	2.16	1.36	1.25	1.14
AC-FT†	15400	93010	34350	58420	64000	72910	40870	22640	12300	7780	7150	6510

CAL YR 1986 TOTAL 261889 MEAN 717 MAX 11100 MIN 85 AC-FT 519100 MEAN† 717 CFSM† 6.70 IN.† 90.91 AC-FT† 518760
WTR YR 1987 TOTAL 225991 MEAN 619 MAX 6070 MIN 82 AC-FT 448300 MEAN† 601 CFSM† 5.62 IN.† 76.32 AC-FT† 435400

† Adjusted for change in Bull Run Reservoir Number One and Bull Run Reservoir Number Two.

14141500 LITTLE SANDY RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°24′55″, long 122°10′20″, in NE 1/4 NE 1/4 sec.10, T.2 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on left bank 0.25 mi upstream from Portland General Electric Co. dam and tunnel from Sandy River, 3.0 mi east of Bull Run, and at mile 1.95.

DRAINAGE AREA.--22.3 mi^2.

PERIOD OF RECORD.--May to July 1911, October 1911 to March 1912, June 1912 to April 1913, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1154: 1949. WSP 1248: Drainage area. WSP 1288: 1912, 1920-21(M), 1922-23, 1931, 1945. WSP 1318: 1920. WDR OR-82-2: 1972(P), 1974-76(P), 1978-81(P).

GAGE.--Water-stage recorder. Elevation of gage is 720 ft, from topographic map. May 23, 1911, to Apr. 29, 1913, nonrecording gage at site 0.85 mi downstream at different datum, 0.5 mi downstream from Sandy River diversion tunnel. July 1, 1919, to Sept. 30, 1931, water-stage recorder at site 0.1 mi downstream at different datum. Oct 1, 1931, to Nov. 3, 1967, at site 0.1 mi downstream at datum 712 ft above National Geodetic Vertical Datum of 1929. Nov. 4, 1967, to Aug. 8, 1971, water-stage recorder at site 0.1 mi downstream at datum 697.44 ft above National Geodetic Vertical Datum of 1929 (Portland General Electric Co. bench mark).

REMARKS.--Estimated daily discharges: June 11 to July 16. Records excellent except for estimated daily discharges, which are good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--68 years (water years 1920-87), 145 ft^3/s, 88.30 in/yr, 105,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,320 ft^3/s Nov. 20, 1921, gage height, 9.18 ft, site and datum then in use, from rating curve extended above 2,200 ft^3/s; minimum discharge, 8 ft^3/s Aug. 20, Sept. 16, 17, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. [illegible]	1000	*1,100	*4.49				

Minimum discharge, 10 ft^3/s Sept. 6-11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	81	189	183	852	204	99	82	114	21	15	11
2	93	58	156	185	437	294	99	105	84	20	15	11
3	73	47	129	193	306	364	107	113	67	20	15	11
4	60	41	112	176	225	323	111	87	58	20	14	11
5	52	42	109	149	185	252	102	75	54	30	14	11
6	45	88	110	122	162	220	139	67	51	26	14	11
7	40	289	91	105	148	177	135	61	46	23	14	11
8	37	204	81	92	134	149	188	56	43	22	14	11
9	35	174	73	80	125	144	153	52	41	21	13	11
10	33	132	68	74	114	141	193	48	39	23	13	10
11	30	104	65	72	111	135	248	46	37	21	14	11
12	28	95	64	79	100	246	219	135	36	20	14	12
13	27	84	83	84	145	271	184	111	34	18	15	12
14	26	100	112	85	221	313	155	94	33	17	28	14
15	26	83	89	77	157	245	138	87	32	16	23	22
16	24	192	76	67	167	253	124	[illegible]	32	16	18	20
17	25	526	69	66	244	257	174	[illegible]	31	17	16	14
18	31	286	65	64	195	242	164	65	29	31	15	13
19	27	298	68	61	166	221	149	62	28	34	14	12
20	23	452	62	57	139	195	149	57	27	23	14	14
21	23	478	59	55	136	187	140	53	42	21	14	[illegible]
22	22	380	64	55	131	162	123	49	36	33	13	[illegible]
23	22	424	88	59	123	168	119	46	31	25	13	[illegible]
24	22	287	93	111	117	158	106	45	27	22	13	[illegible]
25	22	221	91	136	111	149	94	44	26	21	12	14
26	31	363	78	380	93	152	85	52	25	19	11	10
27	61	682	98	395	87	130	80	41	24	18	11	[illegible]
28	58	553	94	285	82	118	77	44	23	17	11	[illegible]
29	41	361	97	213	---	106	71	44	22	16	11	[illegible]
30	56	241	118	180	---	99	72	66	22	16	11	[illegible]
31	[illegible]	---	97	471	---	97	---	124	---	16	11	---
TOTAL	1325	7372	2868	4382	5191	6094	4011	2141	1194	663	451	411
MEAN	42.6	246	92.5	141	185	197	134	69.1	39.8	21.4	14.5	13.7
MAX	128	682	189	471	852	364	248	135	114	34	28	40
MIN	21	41	59	54	82	97	71	42	22	16	11	10
AC-FT	2620	14620	5690	8690	10300	12090	7960	4250	2370	1320	895	815
CFSM	1.91	11.0	4.15	6.34	8.31	8.82	6.00	3.10	1.78	.96	.65	.61
IN.	2.20	12.30	4.78	7.31	8.66	10.17	6.69	3.57	1.99	1.11	.75	.69

CAL YR 1986 TOTAL 44413 MEAN 122 MAX 2330 MIN 13 AC-FT 88090 CFSM 5.46 IN. 74.09
WTR YR 1987 TOTAL 36098 MEAN 98.9 MAX 852 MIN 10 AC-FT 71600 CFSM 4.43 IN. 60.22

14142500 SANDY RIVER BELOW BULL RUN RIVER, NEAR BULL RUN, OR

LOCATION.--Lat 45°26′57″, long 122°14′38″, in SW 1/4 sec.30, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, on left bank 0.1 mi downstream from Bull Run River, 0.2 mi downstream from Dodge Park, 400 ft below city of Portland water conduit crossing Sandy River, and at mile 18.4.

DRAINAGE AREA.--436 mi^2.

PERIOD OF RECORD.--April 1910 to September 1914, October 1929 to September 1966, May 1984 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Elevation of gage is 240 ft, from topographic map. April 1910 to September 1914, staff gage at present site at different datum. October 1929 to September 1966, water-stage recorder at site 0.8 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Mar. 23-26. Records good. Flow regulated since 1915 by Bull Run Lake, since 1929 by Bull Run Reservoir Number One (station 14139000), and since 1961 by Bull Run Reservoir Number Two (station 14139900). Some fluctuation caused by Bull Run powerplant of Portland General Electric Company. Portland Water Bureau diverted 136,400 acre-ft from Bull Run River during the 1987 water year, of which 65.3 acre-ft were used for power generation by Portland General Electric Company and returned to Bull Run River.

AVERAGE DISCHARGE.--44 years (water years 1911-14, 1930-66, 1985-87) 2,327 ft^3/s, 1,686,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84,400 ft^3/s Dec. 22, 1964, gage height, 22.3 ft, site and datum then in use; minimum discharge, 45 ft^3/s Sept. 26, 1962, minimum daily, 63 ft^3/s Oct. 12, Nov. 9, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,000 ft^3/s Feb. 1, gage height, 15.37 ft; minimum discharge, 231 ft^3/s Aug. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	805	3670	2790	14200	2770	1500	1820	2060	544	377	347
2	830	672	2820	3460	8130	3790	1630	1750	1420	518	352	359
3	711	583	2300	3320	5530	5050	1760	2020	1170	493	351	328
4	641	540	2010	2900	4350	5120	1810	1540	1200	480	350	316
5	591	519	1880	2560	3280	4130	1700	1320	975	517	377	317
6	563	848	1800	2100	2990	3790	1960	1320	990	485	346	317
7	530	3090	1560	1740	2510	3070	1970	1370	990	453	347	320
8	500	2600	1440	1590	2420	2460	3040	1350	839	454	346	324
9	473	2330	1290	1370	2270	2430	2570	1290	819	456	351	322
10	453	1840	1290	1320	2120	2320	2960	1180	767	489	372	305
11	436	1420	1250	1280	2100	2200	3800	1120	727	481	345	306
12	418	1360	1220	1330	2030	3470	3550	1770	673	443	335	331
13	408	1390	1140	1440	2500	3900	2950	1540	711	446	336	334
14	399	1320	1370	1520	3060	4440	2660	1390	697	445	430	294
15	397	1220	1300	1310	2660	4170	2370	1310	746	444	373	391
16	405	2210	1200	1200	2940	3670	2230	1460	646	406	385	351
17	378	6860	1160	1210	3810	3620	2920	1260	620	400	340	313
18	474	4790	1120	1200	3420	4340	2640	1060	590	568	332	292
19	398	5500	1110	1180	2770	3610	2490	1140	582	529	364	301
20	422	6480	1080	886	2500	3420	2380	1080	580	420	338	290
21	372	8190	1060	943	2320	3000	2330	881	647	465	324	286
22	394	7200	980	936	2380	2600	2280	928	624	506	321	297
23	358	7260	1320	1040	2110	2600	2180	818	556	459	352	292
24	376	6110	1660	1660	1820	2400	2020	820	545	434	345	288
25	357	4780	1450	2580	1630	2300	1860	800	550	433	338	295
26	451	5460	1760	4540	1650	2200	1710	793	555	413	335	414
27	731	9970	1690	5110	1480	1860	1700	784	554	409	309	363
28	643	9310	1510	4650	1420	1780	1830	951	544	401	342	352
29	517	6420	1550	3840	---	1640	1800	797	535	396	349	293
30	597	4640	1940	3180	---	1520	1800	1030	551	375	334	283
31	818	---	1680	5270	---	1570	---	1840	---	379	331	---
TOTAL	16111	115517	48610	69455	90400	95390	68400	38532	23463	14139	10830	9578
MEAN	520	3851	1568	2240	3229	3077	2280	1243	782	456	349	319
MAX	1070	9970	3670	5270	14200	5120	3800	2020	2060	568	430	414
MIN	357	519	980	886	1420	1520	1500	784	535	375	309	283
AC-FT	31960	229100	96420	137800	179300	189200	135700	76430	46540	28040	21480	18990

CAL YR 1986 TOTAL 750060 MEAN 2055 MAX 39900 MIN 317 AC-FT 1488000
WTR YR 1987 TOTAL 600422 MEAN 1645 MAX 14200 MIN 283 AC-FT 1191000

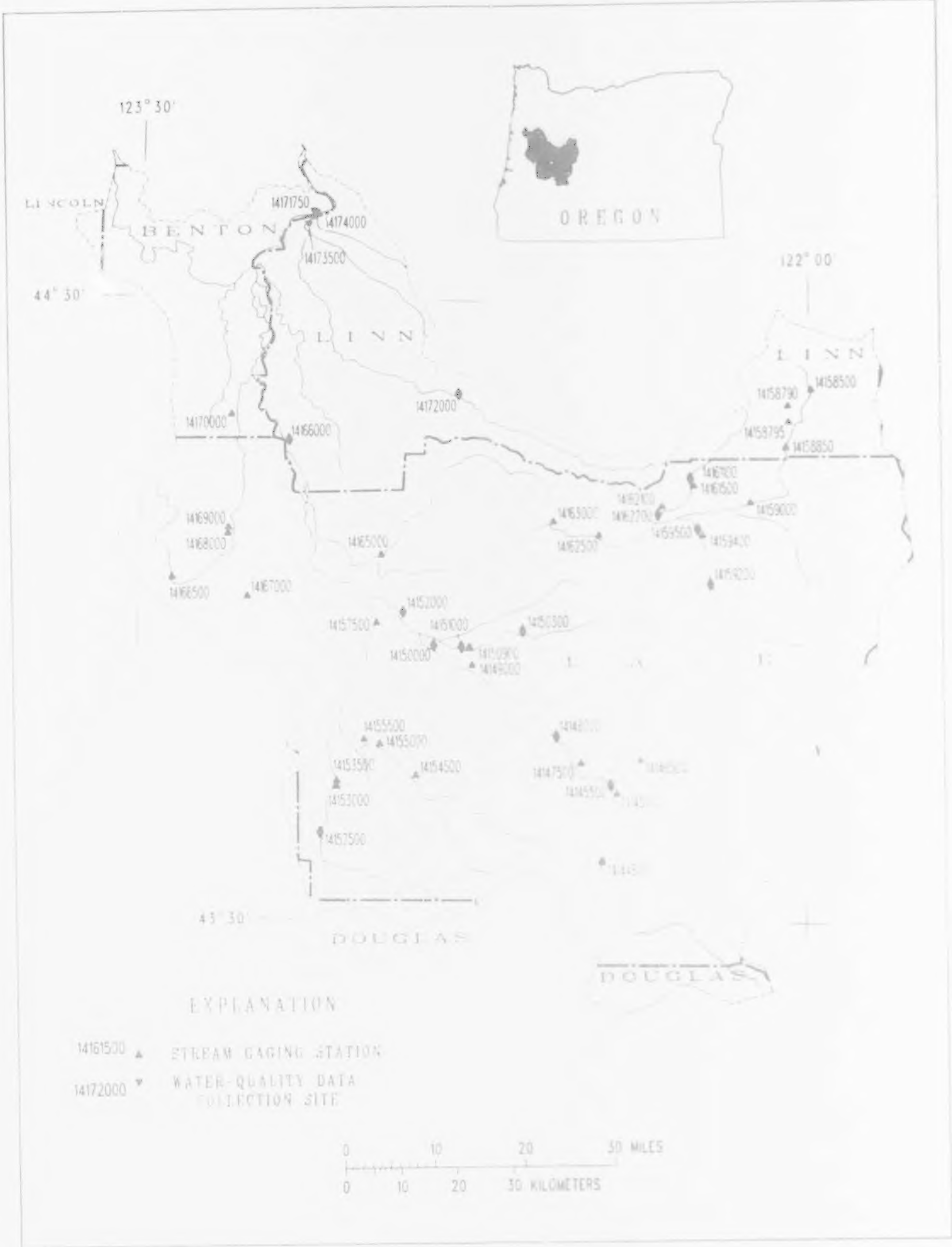

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Figure 3.--Location of surface-water and water-quality stations in the Willamette River, upstream from the Luckiamute River, and McKenzie River basins.

14144800 MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR

LOCATION.--Lat 43°35′50″, long 122°27′20″, in NW 1/4 NE 1/4 sec.9, T.23 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest. on right bank 0.2 mi upstream from Windfall Creek, 8.3 mi upstream from Hills Creek Dam, 10.2 mi south of Oakridge, and at mile 240.8.

DRAINAGE AREA.--258 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,556.83 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 21, 1967, at site 0.5 mi upstream at different datums. June 22, 1967, to June 23, 1971, water-stage recorder at same site at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation - diversion upstream from station.

AVERAGE DISCHARGE.--29 years, 817 ft^3/s, 43.00 in/yr, 592,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,800 ft^3/s Dec. 22, 1964, gage height, 16.96 ft, from floodmark, site and datum then in use, from rating curve extended above 5,100 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 187 ft^3/s Sept. 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1430	*3,870	8.51	Jan. 25	2030	3,510	8.26
Nov. 27	1430	(a)	*8.9	Jan. 25	2030	(a)	8.6

Minimum discharge, 206 ft^3/s Sept. 22, 23.

(a) From outside gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	533	699	1110	1050	1930	629	677	1020	490	302	322	228
2	492	578	959	1220	2400	619	752	920	454	296	310	226
3	456	507	863	1080	1860	653	814	878	434	288	301	225
4	438	462	802	971	1480	705	785	868	431	285	293	223
5	434	427	773	828	1290	832	762	909	432	284	286	220
6	423	416	726	731	1160	928	737	982	422	282	282	217
7	411	486	678	654	1100	846	722	1040	414	278	278	217
8	390	530	642	603	1050	802	797	1030	411	278	271	216
9	372	659	606	567	1020	769	824	987	399	275	266	216
10	356	710	579	544	984	736	854	942	395	276	264	218
11	339	607	559	531	1010	761	968	874	378	272	263	219
12	326	572	568	534	999	1030	888	842	370	264	262	222
13	315	556	602	525	1380	1180	821	808	363	260	262	226
14	309	586	662	513	1420	1370	804	760	357	257	267	226
15	303	589	619	487	1280	1250	847	718	361	254	262	222
16	299	551	585	459	1180	1100	887	684	365	256	256	224
17	301	609	561	457	1100	1030	959	648	360	291	251	223
18	305	673	543	449	1040	1020	926	612	346	542	249	217
19	297	881	530	439	956	957	834	577	337	528	247	214
20	285	988	507	427	892	884	775	533	333	397	246	215
21	281	1430	490	425	853	829	768	506	389	387	244	213
22	277	1800	502	425	795	777	863	487	372	817	244	211
23	274	1530	548	444	778	810	970	474	344	597	248	209
24	274	1320	549	879	746	775	980	506	329	494	240	212
25	273	1160	537	2270	708	744	955	523	319	472	239	215
26	279	1140	572	2560	680	720	929	492	309	417	237	216
27	418	2630	556	2130	658	687	1020	473	306	393	235	218
28	370	3000	533	1950	642	660	1130	458	302	369	233	217
29	383	1760	552	1490	---	634	1080	442	304	351	229	215
30	753	1330	565	1250	---	620	1050	442	314	341	226	212
31	858	---	559	1200	---	635	---	517	---	331	226	---
TOTAL	11824	29186	19437	28092	31391	25992	26178	21952	11140	11134	8039	6552
MEAN	381	973	627	906	1121	838	873	708	371	359	259	218
MAX	858	3000	1110	2560	2400	1370	1130	1040	490	817	322	228
MIN	273	416	490	425	642	619	677	442	302	254	226	209
AC-FT	23450	57890	38550	55720	62260	51560	51920	43540	22100	22080	15950	13000
CFSM	1.48	3.77	2.43	3.51	4.35	3.25	3.38	2.74	1.44	1.39	1.01	.85
IN.	1.70	4.21	2.80	4.05	4.53	3.75	3.77	3.17	1.61	1.61	1.16	.94

CAL YR 1986 TOTAL 311605 MEAN 854 MAX 10300 MIN 233 AC-FT 618100 CFSM 3.31 IN. 44.93
WTR YR 1987 TOTAL 230917 MEAN 633 MAX 3000 MIN 209 AC-FT 458000 CFSM 2.45 IN. 33.30

14144800 MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1958 to January 1959, September 1959 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder October 1958 to January 1959, September 1959 to September 1987 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 23.0°C July 15, 1970; minimum, 0.0°C on several days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 20.0°C July 13, 14; minimum, 0.0°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.5	7.0	9.0	8.5	7.0	8.0	---	---	---	6.0	4.0	5.0
2	11.0	7.0	9.0	8.0	5.5	7.0	---	---	---	5.5	4.0	5.0
3	11.0	6.5	9.0	8.5	5.5	7.0	---	---	---	6.0	4.5	5.5
4	11.5	6.0	9.0	8.5	5.5	7.0	---	---	---	5.5	4.0	5.0
5	11.5	6.5	9.5	7.5	6.0	7.0	---	---	---	4.5	3.0	4.0
6	12.0	7.5	9.5	7.5	6.5	7.0	---	---	---	4.5	3.0	4.0
7	12.0	6.5	10.0	6.5	5.5	6.0	---	---	---	3.5	2.0	2.5
8	11.5	6.5	9.5	7.5	5.5	6.5	---	---	---	3.0	1.5	2.5
9	11.5	7.0	9.5	8.0	5.0	6.5	---	---	---	3.5	1.5	2.5
10	11.0	6.5	9.0	7.0	5.0	6.0	4.5	3.0	3.5	4.5	2.5	3.0
11	10.5	6.5	8.5	5.5	4.5	5.0	5.0	2.5	4.0	4.0	2.5	3.5
12	10.5	6.5	8.0	---	---	---	5.5	4.0	5.0	4.5	3.0	4.0
13	10.0	6.0	8.0	---	---	---	5.5	4.0	5.0	4.5	3.0	4.0
14	10.0	6.0	8.0	---	---	---	6.0	4.0	5.0	4.5	3.0	3.5
15	10.0	6.0	8.0	---	---	---	4.5	3.5	4.0	3.0	1.5	2.0
16	9.5	6.0	8.0	---	---	---	4.5	3.0	4.0	2.0	.0	1.0
17	9.0	8.0	8.5	---	---	---	4.5	3.0	3.5	2.5	.5	1.5
18	11.0	7.5	9.0	---	---	---	5.0	3.5	4.0	3.0	1.5	2.5
19	10.5	7.0	8.5	---	---	---	5.0	3.5	4.5	3.0	1.5	2.5
20	10.0	6.0	8.0	---	---	---	5.0	3.5	4.0	3.0	1.0	2.0
21	9.5	6.5	8.0	---	---	---	5.5	3.5	4.5	4.0	1.5	2.5
22	10.0	6.5	8.0	---	---	---	6.0	4.5	5.5	5.0	2.5	3.0
23	9.0	6.5	8.0	---	---	---	6.0	4.5	5.5	5.0	3.5	4.0
24	9.5	7.5	8.5	---	---	---	5.5	4.0	5.0	5.0	3.5	4.5
25	11.0	7.0	9.0	---	---	---	5.0	3.0	4.5	5.5	4.0	5.0
26	10.0	7.5	9.0	---	---	---	5.5	3.5	5.0	6.5	5.0	5.5
27	10.5	8.5	9.0	---	---	---	4.0	2.5	3.5	6.5	4.5	5.5
28	8.5	6.5	8.0	---	---	---	4.0	2.5	3.5	5.5	4.5	5.0
29	8.5	6.0	7.5	---	---	---	5.5	3.0	4.5	6.0	5.0	5.5
30	9.0	7.5	8.0	---	---	---	4.5	3.5	4.0	6.0	4.5	5.5
31	9.0	7.0	8.5				6.0	3.0	4.5	5.5	4.0	5.0
MONTH	12.0	6.0	8.5	---	---	---	---	---	---	6.5	.0	4.0

14144800 MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	3.5	5.0	6.5	3.0	5.0	10.5	5.5	8.0	8.5	6.0	7.5
2	6.5	4.5	5.5	7.0	4.5	5.5	9.5	4.5	7.5	8.0	6.0	7.0
3	6.5	5.0	6.0	7.5	6.0	6.5	8.0	5.5	7.0	12.0	6.5	9.0
4	6.5	3.5	5.5	8.5	5.0	7.0	9.0	5.0	7.0	13.0	6.5	10.0
5	6.5	4.5	5.5	7.0	5.5	6.5	7.5	4.5	6.0	14.0	8.0	11.0
6	6.5	4.5	5.5	7.0	5.0	6.0	7.5	4.5	6.5	14.0	8.0	11.5
7	6.5	4.0	5.5	7.0	3.0	5.0	11.0	6.0	8.0	14.0	9.0	11.5
8	6.5	4.5	5.5	6.5	4.5	5.5	10.0	7.0	8.5	13.0	9.0	11.0
9	7.0	4.0	5.5	7.0	5.0	6.0	9.5	5.0	7.5	14.5	9.0	11.5
10	7.0	6.0	6.5	7.0	4.0	6.0	8.5	6.0	7.0	14.0	9.0	11.5
11	7.0	5.0	6.0	6.5	5.0	5.5	8.0	5.0	6.5	13.5	9.0	11.5
12	6.5	3.5	5.0	7.0	5.5	6.0	9.5	4.0	7.0	12.5	10.0	11.0
13	6.5	4.5	6.0	7.0	5.5	6.0	10.0	5.0	7.5	14.5	9.5	12.0
14	6.0	4.5	5.0	6.5	4.5	5.5	11.0	5.0	8.5	14.5	10.0	12.0
15	6.0	4.5	5.5	6.5	3.5	5.5	11.5	5.0	8.5	14.0	10.5	12.0
16	6.0	4.0	5.0	7.0	4.0	6.0	11.5	6.5	9.0	14.5	9.5	11.5
17	6.5	4.0	5.5	7.0	5.0	6.0	9.0	5.5	8.0	13.5	7.5	10.5
18	6.0	3.5	5.0	6.0	4.0	5.0	7.5	4.5	6.0	13.5	7.0	10.5
19	7.0	3.5	5.0	6.5	3.5	5.0	9.0	4.5	6.5	13.0	6.5	10.0
20	6.0	4.0	5.0	6.5	3.5	5.0	11.0	4.5	7.5	13.5	6.0	10.0
21	5.5	4.0	5.0	7.0	4.0	5.5	12.5	6.5	9.0	13.0	6.5	10.0
22	5.5	3.5	4.5	7.5	3.0	5.5	12.0	6.5	9.5	13.5	7.5	10.5
23	5.5	3.5	4.0	7.0	4.0	6.0	11.5	7.0	9.5	13.5	7.5	11.0
24	5.0	3.0	4.0	8.0	4.0	6.0	11.0	6.5	8.5	11.0	9.5	10.0
25	4.5	2.0	3.0	7.5	3.0	5.5	11.0	6.5	8.5	11.0	8.5	9.5
26	5.0	2.0	3.5	8.0	4.5	6.0	12.5	6.5	9.5	10.0	8.0	9.5
27	6.5	3.0	4.5	8.0	3.5	5.5	12.5	6.5	10.0	10.5	8.0	9.5
28	6.5	3.0	5.0	8.0	2.5	5.5	10.5	7.0	9.0	13.0	8.0	10.5
29	---	---	---	8.5	3.5	6.0	11.5	6.0	9.0	14.5	9.0	11.5
30	---	---	---	9.5	4.0	6.5	9.5	6.5	8.5	11.5	10.0	10.5
31	---	---	---	9.5	4.0	7.0	---	---	---	12.0	8.0	10.0
MONTH	7.0	2.0	5.0	9.5	2.5	6.0	12.5	4.0	8.0	14.5	6.0	10.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	7.0	11.0	19.0	13.0	16.0	17.5	10.5	14.0	16.0	13.0	14.5
2	15.5	8.0	12.0	19.0	13.0	15.5	18.0	11.5	14.5	17.0	12.0	14.5
3	16.5	9.5	13.5	19.0	12.5	15.5	19.0	12.0	15.5	17.0	12.0	14.5
4	17.5	11.0	14.0	17.5	13.0	15.5	19.0	12.5	15.5	16.5	10.5	13.5
5	15.5	10.0	13.0	16.5	12.0	14.5	18.5	12.0	15.0	17.0	11.0	14.0
6	17.0	10.5	13.5	17.5	12.0	14.5	18.0	12.0	15.0	17.0	11.0	14.0
7	15.0	11.0	13.5	17.0	11.5	14.5	18.5	11.5	15.0	17.0	11.5	14.0
8	17.0	11.0	14.0	18.5	13.0	15.5	19.0	12.5	15.5	17.0	11.5	14.5
9	14.5	12.0	13.0	16.0	11.5	14.0	19.0	12.0	16.0	16.0	11.5	14.0
10	16.0	9.0	12.5	18.5	12.5	15.0	18.5	13.0	15.5	16.0	12.0	14.0
11	17.5	10.0	14.0	18.5	11.5	15.0	18.0	11.0	14.5	15.0	12.5	13.5
12	18.0	11.0	14.5	19.5	12.5	16.0	17.5	11.5	14.5	14.0	12.0	13.0
13	18.5	11.5	15.0	20.0	13.0	16.5	15.0	12.5	14.0	15.0	12.0	13.0
14	17.0	12.5	15.0	20.0	13.5	17.0	16.0	11.5	14.0	14.0	10.0	12.5
15	14.0	11.0	12.0	19.0	13.0	16.0	17.0	11.5	14.0	14.0	10.5	12.0
16	12.5	10.0	11.0	15.0	11.5	13.0	17.5	11.5	14.0	13.5	8.5	11.0
17	16.0	10.0	12.5	13.0	11.0	11.5	17.0	10.5	13.5	14.0	8.5	11.0
18	16.5	9.5	13.0	11.5	10.5	11.0	17.5	11.0	14.0	14.5	9.0	11.5
19	17.5	10.0	14.0	16.0	10.5	13.0	17.5	11.5	14.5	14.5	9.0	11.5
20	14.5	11.5	13.0	15.5	10.5	13.0	17.5	11.5	14.5	14.0	9.0	11.5
21	14.0	11.0	12.5	14.0	11.0	13.0	17.0	10.5	14.0	14.5	9.5	12.0
22	16.5	10.0	13.0	15.0	10.5	12.5	15.0	11.0	13.0	15.0	9.5	12.0
23	17.0	10.0	13.5	16.0	11.0	13.0	18.0	12.0	14.5	14.5	9.5	12.5
24	18.0	10.5	14.5	17.5	12.0	14.0	17.5	11.5	14.5	13.5	10.5	12.0
25	19.0	11.5	15.5	16.5	12.0	14.0	17.5	11.5	14.5	14.5	10.5	12.5
26	19.5	13.0	16.5	18.0	12.5	15.0	17.5	11.5	14.5	14.0	10.5	12.0
27	19.5	13.0	16.5	17.5	12.5	14.5	18.0	12.0	15.0	13.0	8.0	10.5
28	19.5	12.5	16.0	17.5	12.5	15.0	18.0	12.0	15.0	13.5	8.0	11.0
29	19.5	13.0	16.0	17.0	12.5	14.5	18.0	12.0	15.0	13.5	8.5	11.0
30	18.5	13.0	15.5	15.5	12.5	14.5	18.0	12.0	15.0	14.0	8.5	11.0
31	---	---	---	17.5	11.5	14.0	18.0	13.0	15.5	---	---	---
MONTH	19.5	7.0	14.0	20.0	10.5	14.5	19.0	10.5	14.5	17.0	8.0	12.5

14145100 HILLS CREEK LAKE NEAR OAKRIDGE, OR

LOCATION.--Lat 43°42'30", long 122°25'25", in NW 1/4 sec.35, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, near right end of Hills Creek Dam on Middle Fork Willamette River, 600 ft downstream from Hills Creek, 3.5 mi southeast of Oakridge, and at mile 232.5.

DRAINAGE AREA.--389 mi^2.

PERIOD OF RECORD.--August 1961 to current year. Prior to October 1971, published as Hills Creek Reservoir near Oakridge.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1961 by the Corps of Engineers; storage began August 1961. Total capacity is 355,600 acre-ft at elevation 1,543.0 ft, top of spillway gates, and usable capacity is 248,900 acre-ft between elevations 1,414.0 ft, minimum power pool, and 1,543.0 ft. Reservoir used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 354,200 acre-ft June 25, 1971, elevation, 1,542.52 ft; minimum contents, 104,800 acre-ft Jan. 2, 1969, elevation, 1,412.52 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 352,400 acre-ft July 22, elevation, 1,541.87 ft; minimum contents, 154,800 acre-ft Dec. 22, elevation, 1,447.64 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,410	101,500	1,460	174,900	1,520	297,200
1,420	114,600	1,480	211,000	1,540	347,300
1,440	143,000	1,500	251,900	1,544	358,500

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1516.78	1484.50	1475.30	1449.10	1469.15	1487.30	1507.78	1531.25	1540.37	1541.08	1541.11	1540.87
2	1515.98	1483.58	1473.00	1449.57	1472.93	1487.81	1508.39	1531.73	1540.57	1541.09	1541.10	1540.84
3	1515.14	1482.53	1471.64	1449.55	1474.77	1488.33	1509.06	1532.07	1540.71	1541.11	1541.11	1540.81
4	1514.25	1481.40	1470.19	1449.17	1475.56	1488.95	1509.68	1532.38	1540.85	1541.15	1541.12	1540.78
5	1513.34	1480.21	1468.64	1448.87	1476.01	1489.82	1510.26	1532.73	1540.97	1541.16	1541.11	1540.76
6	1512.42	1479.03	1467.03	1448.65	1476.16	1490.75	1510.88	1533.18	1541.05	1541.19	1541.09	1540.73
7	1511.42	1478.09	1465.28	1448.21	1476.26	1491.54	1511.55	1533.69	1541.10	1541.22	1541.09	1540.71
8	1510.44	1477.22	1463.91	1447.95	1476.28	1492.28	1512.37	1534.18	1541.11	1541.24	1541.09	1540.42
9	1509.42	1476.59	1462.81	1447.95	1476.26	1492.98	1513.14	1534.60	1541.10	1541.27	1541.09	1539.65
10	1508.38	1475.98	1461.64	1447.95	1476.18	1493.66	1513.96	1534.95	1541.06	1541.30	1541.07	1538.73
11	1507.34	1475.11	1460.44	1448.06	1475.81	1494.39	1514.93	1535.23	1541.03	1541.34	1541.07	1537.82
12	1506.25	1474.16	1459.19	1448.12	1475.49	1495.70	1515.78	1535.53	1541.03	1541.35	1541.08	1536.89
13	1505.16	1473.18	1458.06	1448.09	1476.08	1497.41	1516.55	1535.83	1541.03	1541.35	1541.08	1535.98
14	1504.06	1472.27	1457.00	1448.05	1476.75	1498.87	1517.30	1536.15	1541.04	1541.36	1541.08	1535.04
15	1502.95	1471.33	1455.83	1448.03	1477.10	1499.90	1518.08	1536.53	1541.04	1541.37	1541.07	1534.10
16	1501.82	1470.30	1454.61	1448.28	1477.19	1500.96	1518.89	1536.87	1541.05	1541.37	1541.06	1533.14
17	1500.72	1469.30	1453.35	1448.68	1477.94	1502.06	1519.78	1537.16	1541.04	1541.48	1541.05	1532.18
18	1499.56	1468.43	1452.04	1449.05	1479.23	1502.93	1520.63	1537.42	1541.03	1541.69	1541.05	1531.20
19	1498.38	1467.88	1450.72	1449.42	1480.34	1503.44	1521.33	1537.65	1541.03	1541.70	1541.04	1530.23
20	1497.16	1467.78	1449.33	1449.75	1481.33	1503.83	1522.00	1537.86	1541.04	1541.71	1541.03	1529.26
21	1495.92	1468.95	1448.08	1450.09	1482.23	1504.14	1522.67	1538.07	1541.06	1541.78	1541.01	1528.27
22	1494.67	1471.25	1447.73	1450.43	1483.05	1504.36	1523.44	1538.26	1541.03	1541.83	1540.97	1527.29
23	1493.29	1472.46	1447.97	1450.83	1483.81	1504.67	1524.28	1538.45	1541.03	1541.36	1540.99	1526.27
24	1492.03	1473.02	1448.17	1452.10	1484.50	1504.89	1525.14	1538.71	1541.03	1541.14	1540.99	1525.25
25	1490.75	1472.77	1448.25	1456.82	1485.13	1505.09	1525.96	1538.99	1541.03	1541.13	1540.99	1524.23
26	1489.55	1472.19	1448.27	1460.87	1485.70	1505.22	1526.75	1539.19	1541.03	1541.14	1540.99	1523.20
27	1488.47	1475.77	1448.27	1463.70	1486.25	1505.33	1527.66	1539.38	1541.03	1541.13	1540.97	1522.16
28	1487.28	1480.00	1448.21	1465.69	1486.80	1505.85	1528.67	1539.57	1541.02	1541.11	1540.96	1521.12
29	1486.21	1480.50	1448.19	1466.51	---	1506.34	1529.58	1539.74	1541.02	1541.11	1540.93	1520.08
30	1485.66	1478.36	1448.24	1466.70	---	1506.79	1530.45	1539.93	1541.05	1541.12	1540.90	1519.04
31	1485.22	---	1448.24	1466.99	---	1507.27	---	1540.17	---	1541.11	1540.89	---
MAX	1516.78	1484.50	1475.30	1466.99	1486.80	1507.27	1530.45	1540.17	1541.11	1541.83	1541.12	1540.87
MIN	1485.22	1467.78	1447.73	1447.95	1469.15	1487.30	1507.78	1531.25	1540.37	1541.08	1540.89	1519.04
(†)	221200	207800	155800	187000	224300	267900	322700	347800	350200	350300	349700	295000
(‡)	-70200	-13400	-52000	+31200	+37300	+43600	+54800	+25100	+2400	+100	-600	-54700

CAL YR 1986 MAX 1541.15 MIN 1447.73 AC-FT‡ -5400
WTR YR 1987 MAX 1541.83 MIN 1447.73 AC-FT‡ +3600

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°43'20", long 122°26'15", in NW 1/4 NE 1/4 sec.27, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 90 ft upstream from highway bridge, 0.4 mi upstream from Salt Creek, 1.1 mi downstream from Hills Creek Dam, 2.3 mi southeast of Oakridge, and at mile 231.4.

DRAINAGE AREA.--392 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to September 1914, September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1914.

GAGE.--Water-stage recorder. Datum of gage is 1,208.01 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Oct. 3, 1913, to Sept. 30, 1914, nonrecording gage and Sept. 1, 1935, to Aug. 18, 1960, water-stage recorder at sites 400 ft and 1,000 ft downstream, respectively, at different datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1961 by Hills Creek Lake (station 14145100). No diversions upstream from station.

AVERAGE DISCHARGE.--53 years, 1,156 ft^3/s, 40.05 in/yr, 837,300 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft^3/s Dec. 28, 1945, gage height, 12.06 ft, site and datum then in use, from rating curve extended above 13,000 ft^3/s; minimum observed discharge, 0.70 ft^3/s Sept. 8-11, 13, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,060 ft^3/s Dec. 1, gage height, 6.69 ft; minimum discharge, 85 ft^3/s Apr. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1580	1700	4990	1170	1850	277	279	213	301	308	374	290
2	1590	1700	3930	1890	1820	279	280	443	299	283	366	294
3	1590	1720	2510	1900	1800	356	282	603	295	282	322	303
4	1600	1740	2500	1900	1820	385	281	610	291	281	336	296
5	1630	1740	2470	1520	1700	286	281	609	320	281	350	285
6	1630	1740	2460	1240	1610	206	199	603	375	283	351	282
7	1630	1740	2440	1260	1510	282	129	591	428	281	324	281
8	1620	1740	1970	1030	1470	281	109	590	474	281	329	634
9	1640	1730	1740	748	1440	238	108	590	487	282	309	1220
10	1640	1730	1750	694	1420	243	109	597	485	280	292	1460
11	1640	1720	1720	605	1760	238	111	593	473	273	297	1460
12	1650	1720	1770	688	1700	246	111	590	397	292	295	1470
13	1650	1720	1770	768	1760	291	111	590	371	292	295	1480
14	1650	1720	1770	731	1760	623	107	402	384	289	304	1470
15	1640	1710	1770	657	1760	843	106	281	403	288	319	1480
16	1640	1720	1770	400	1760	461	107	283	414	291	298	1480
17	1680	1760	1760	286	953	273	108	284	429	295	293	1490
18	1700	1750	1760	279	282	537	109	286	404	505	294	1500
19	1690	1750	1750	278	281	817	110	292	373	705	294	1490
20	1700	1750	1750	280	282	817	111	294	375	452	295	1490
21	1730	1760	1610	281	281	814	110	281	462	432	292	1500
22	1730	1770	936	275	283	815	110	278	492	1340	288	1510
23	1730	1770	528	274	288	829	110	276	382	1450	285	1520
24	1730	1770	572	296	281	838	110	272	380	1000	284	1530
25	1720	2100	668	817	281	836	111	271	380	598	282	1530
26	1710	2500	744	1880	280	835	105	277	374	494	278	1530
27	1710	2230	762	1540	270	821	102	280	374	498	282	1530
28	1710	2400	759	1840	264	287	102	276	374	468	291	1530
29	1700	3060	759	1840	---	281	120	278	333	389	290	1520
30	1700	4580	758	1840	---	280	148	278	295	399	288	1520
31	1700	---	800	1840	---	284	---	278	---	390	285	---
TOTAL	51660	58600	53246	31047	30966	14979	4276	12389	11624	13982	9482	35375
MEAN	1666	1953	1718	1002	1106	483	143	400	387	451	306	1179
MAX	1730	4580	4990	1900	1850	843	282	610	492	1450	374	1530
MIN	1580	1700	528	274	264	238	102	213	291	273	278	281
AC-FT	102500	116200	105600	61580	61420	29710	8480	24570	23060	27730	18810	70170
MEAN†	525	1728	872	1509	1778	1192	1063	808	428	453	296	260
CFSM†	1.34	4.41	2.22	3.85	4.54	3.04	2.71	2.06	1.09	1.16	.76	.66
IN.†	1.55	4.92	2.56	4.44	4.72	3.51	3.03	2.38	1.22	1.33	.87	.74
AC-FT†	32300	102800	53600	92780	98720	73310	63280	49670	25460	27830	18210	15470

CAL YR 1986 TOTAL 454148 MEAN 1244 MAX 5960 MIN 133 AC-FT 900800 MEAN† 1237 CFSM† 3.16 IN.† 42.84 AC-FT† 895400
WTR YR 1987 TOTAL 327626 MEAN 898 MAX 4990 MIN 102 AC-FT 649800 MEAN† 903 CFSM† 2.30 IN.† 31.26 AC-FT† 653400

† Adjusted for change in contents in Hills Creek Lake.

14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1960 to current year.

INSTRUMENTATION.--Temperature recorder since October 1960.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 25.0°C Sept. 4, 1960; minimum, 1.5°C Jan. 4, 1961.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 14.5°C many days in October; minimum, 4.5°C many days in January and February.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	13.5	13.5	13.5	13.5	13.5	8.5	8.5	8.5	6.0	6.0	6.0
2	13.5	13.5	13.5	13.5	13.0	13.5	8.5	8.0	8.0	6.0	6.0	6.0
3	14.0	13.5	13.5	13.5	13.0	13.0	8.0	8.0	8.0	6.0	6.0	6.0
4	14.0	13.5	13.5	13.0	12.5	13.0	8.0	8.0	8.0	6.0	5.5	6.0
5	14.0	13.5	14.0	13.0	12.5	12.5	8.0	7.5	8.0	5.5	5.5	5.5
6	14.0	13.5	13.5	12.5	12.5	12.5	7.5	7.0	7.5	5.5	5.5	5.5
7	14.0	13.5	13.5	12.5	12.5	12.5	7.5	7.0	7.5	5.5	5.5	5.5
8	14.0	13.5	13.5	12.5	12.0	12.5	7.5	7.0	7.5	5.5	5.5	5.5
9	14.0	13.5	13.5	12.0	12.0	12.0	7.5	7.0	7.0	5.5	5.5	5.5
10	14.0	14.0	14.0	12.0	11.5	11.5	7.0	7.0	7.0	5.5	5.5	5.5
11	14.5	14.0	14.0	12.0	11.5	11.5	7.0	7.0	7.0	5.5	5.5	5.5
12	14.5	14.0	14.0	12.0	11.5	11.5	7.0	7.0	7.0	5.5	5.5	5.5
13	14.0	14.0	14.0	11.5	11.0	11.5	7.0	7.0	7.0	5.5	5.5	5.5
14	14.5	14.0	14.0	11.5	11.0	11.0	7.0	7.0	7.0	5.5	5.0	5.5
15	14.5	14.0	14.0	11.0	11.0	11.0	7.0	6.5	7.0	5.0	5.0	5.0
16	14.0	13.5	14.0	11.0	11.0	11.0	6.5	6.5	6.5	5.0	5.0	5.0
17	14.0	14.0	14.0	11.0	11.0	11.0	6.5	6.5	6.5	5.0	4.5	5.0
18	14.0	14.0	14.0	11.0	10.5	10.5	6.5	6.5	6.5	5.0	4.5	5.0
19	14.5	14.0	14.0	10.5	10.5	10.5	6.5	6.0	6.5	5.0	4.5	5.0
20	14.0	14.0	14.0	10.5	10.0	10.5	6.5	6.0	6.5	5.0	4.5	5.0
21	14.0	14.0	14.0	10.5	10.0	10.5	6.5	6.0	6.0	5.0	4.5	5.0
22	14.5	13.5	14.0	10.5	10.0	10.0	6.5	6.0	6.0	5.0	4.5	5.0
23	14.0	14.0	14.0	10.0	10.0	10.0	6.5	6.0	6.5	5.0	4.5	5.0
24	14.0	14.0	14.0	10.0	9.5	9.5	6.0	6.0	6.0	5.0	5.0	5.0
25	14.5	14.0	14.0	9.5	9.5	9.5	6.0	6.0	6.0	5.0	4.5	5.0
26	14.0	13.5	14.0	9.5	9.5	9.5	6.5	6.0	6.0	5.0	4.5	4.5
27	14.0	14.0	14.0	9.5	9.0	9.0	6.0	6.0	6.0	5.5	5.0	5.0
28	14.0	14.0	14.0	9.0	9.0	9.0	6.0	6.0	6.0	5.0	5.0	5.0
29	14.0	13.5	14.0	9.0	8.5	8.5	6.0	6.0	6.0	5.0	5.0	5.0
30	13.5	13.5	13.5	8.5	8.5	8.5	6.0	6.0	6.0	5.5	4.5	5.0
31	13.5	13.5	13.5	---	---	---	6.0	6.0	6.0	5.0	5.0	5.0
MONTH	14.5	13.5	14.0	13.5	8.5	11.0	8.5	6.0	7.0	6.0	4.5	5.5

14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	5.0	5.0	6.0	5.5	6.0	7.5	6.0	6.5	7.5	6.0	6.5
2	5.0	4.5	5.0	6.5	5.5	6.0	7.0	6.0	6.5	7.0	6.0	6.5
3	5.5	4.5	5.0	6.5	6.0	6.5	6.5	6.0	6.0	7.5	6.5	6.5
4	6.0	5.5	5.5	7.5	6.0	6.5	7.5	6.0	6.5	8.0	6.5	7.0
5	6.0	5.5	6.0	7.0	6.0	6.5	6.5	6.0	6.0	8.0	6.0	7.0
6	6.0	5.5	5.5	6.5	6.0	6.0	7.0	6.0	6.5	7.5	6.0	7.0
7	6.0	5.5	5.5	7.0	6.0	6.0	9.5	6.5	7.0	7.5	6.5	7.0
8	6.0	5.5	5.5	6.0	6.0	6.0	8.5	6.0	7.0	7.5	6.5	7.0
9	6.0	5.5	5.5	7.0	6.0	6.0	8.5	6.0	7.0	7.5	6.5	7.0
10	6.0	5.5	6.0	7.0	6.0	6.5	7.0	6.0	6.5	7.5	6.5	7.0
11	6.0	6.0	6.0	6.5	6.0	6.5	7.5	6.0	6.5	7.5	6.0	7.0
12	6.0	6.0	6.0	7.0	6.0	6.5	9.0	6.0	7.0	7.5	6.5	7.0
13	6.0	6.0	6.0	7.0	6.0	6.0	9.0	6.0	7.0	7.5	6.5	7.0
14	6.0	6.0	6.0	6.5	6.0	6.0	9.5	6.0	7.5	9.0	6.5	7.5
15	6.0	6.0	6.0	6.5	6.0	6.5	9.5	6.5	7.5	7.5	6.5	7.0
16	6.0	6.0	6.0	7.5	6.0	6.5	9.5	6.0	7.5	8.0	6.0	7.0
17	6.0	6.0	6.0	6.5	6.0	6.0	8.0	6.5	7.0	8.0	6.0	7.0
18	6.5	5.5	6.0	6.0	6.0	6.0	8.0	6.0	6.5	8.0	6.0	7.0
19	6.5	5.5	6.0	6.5	6.0	6.0	9.0	6.0	7.0	8.0	6.0	7.0
20	6.5	5.5	6.0	6.5	6.0	6.5	9.5	6.0	7.0	8.5	6.0	7.0
21	6.0	5.5	5.5	6.5	6.0	6.5	9.5	6.0	7.5	8.5	6.0	7.0
22	6.0	5.5	5.5	6.5	6.0	6.5	9.5	6.0	7.5	8.5	6.0	7.0
23	6.0	5.5	5.5	6.5	6.0	6.5	10.0	6.5	7.5	8.0	6.0	7.0
24	6.0	5.0	5.5	6.5	6.0	6.0	9.5	6.0	7.5	7.0	6.5	6.5
25	6.0	5.0	5.5	6.5	6.0	6.5	9.5	6.0	7.5	7.5	6.5	6.5
26	6.0	5.5	5.5	6.5	6.0	6.5	10.5	6.0	8.0	7.0	6.5	6.5
27	6.5	5.5	5.5	7.0	6.0	6.5	11.0	6.5	8.0	7.0	6.5	6.5
28	6.0	5.5	5.5	7.5	6.0	6.5	8.5	7.0	7.5	7.5	6.5	7.0
29	---	---	---	7.5	6.0	6.5	10.0	6.5	7.5	8.5	6.5	7.0
30	---	---	---	7.5	6.0	6.5	8.0	6.5	7.0	7.5	6.5	7.0
31	---	---	---	7.0	5.5	6.0	---	---	---	7.5	6.5	7.0
MONTH	6.5	4.5	5.5	7.5	5.5	6.5	11.0	6.0	7.0	9.0	6.0	7.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	6.5	7.0	9.0	7.0	7.5	9.0	7.0	8.0	8.5	7.5	8.0
2	8.5	6.0	7.0	8.5	7.0	7.5	8.5	7.5	8.0	9.0	7.5	8.0
3	8.5	6.5	7.0	8.5	7.0	7.5	8.5	7.5	8.0	9.0	7.5	8.0
4	9.0	6.5	7.5	8.5	7.0	7.5	9.0	7.5	8.0	9.5	7.5	8.0
5	8.0	6.5	7.0	8.0	7.0	7.5	8.5	7.5	8.0	9.0	7.5	8.0
6	8.0	6.5	7.0	8.5	7.0	7.5	9.0	7.5	8.0	9.0	7.5	8.0
7	8.0	6.5	7.0	8.5	7.0	7.5	9.0	7.5	8.0	9.5	7.5	8.5
8	8.0	6.5	7.0	8.5	7.0	7.5	9.0	7.5	8.0	9.5	7.5	8.5
9	7.5	6.5	7.0	8.0	7.0	7.5	9.0	7.5	8.0	10.0	9.0	10.0
10	8.0	6.5	7.0	8.5	7.0	7.5	9.0	7.5	8.0	11.0	10.0	10.5
11	8.0	6.5	7.0	9.0	7.0	7.5	9.0	7.5	8.0	11.0	9.5	10.0
12	8.0	6.5	7.0	9.0	7.0	7.5	9.0	7.5	8.0	11.0	10.0	10.5
13	8.5	6.5	7.5	9.0	7.0	7.5	8.5	7.5	8.0	11.0	10.5	10.5
14	8.0	6.5	7.0	9.0	7.0	7.5	8.5	7.5	8.0	11.0	10.5	10.5
15	7.0	7.0	7.0	9.0	7.0	7.5	8.5	7.5	8.0	11.0	10.5	11.0
16	7.5	6.5	7.0	8.0	7.0	7.5	9.0	7.5	8.0	11.5	10.5	11.0
17	8.0	6.5	7.0	7.5	7.0	7.0	9.0	7.5	8.0	11.5	11.0	11.0
18	8.0	6.5	7.0	7.5	7.0	7.5	9.5	7.5	8.0	11.5	11.0	11.5
19	8.0	6.5	7.5	8.5	7.5	7.5	9.0	7.5	8.0	12.0	11.5	11.5
20	7.5	6.5	7.0	8.0	7.0	7.5	9.0	7.5	8.0	12.0	11.5	12.0
21	8.0	7.0	7.0	8.0	7.5	7.5	9.0	7.5	8.0	12.0	12.0	12.0
22	8.0	6.5	7.5	9.0	7.5	8.5	8.5	7.5	8.0	12.5	12.0	12.0
23	8.5	6.5	7.5	8.5	8.0	8.5	9.0	7.5	8.0	12.5	12.0	12.5
24	8.5	7.0	7.5	9.0	7.5	8.5	9.0	7.5	8.0	13.0	12.5	12.5
25	8.5	7.0	7.5	8.5	7.5	8.0	9.0	7.5	8.0	13.0	12.5	13.0
26	8.5	7.0	7.5	8.5	7.5	8.0	9.0	7.5	8.0	13.0	12.5	13.0
27	8.5	7.0	7.5	8.5	7.0	7.5	9.0	7.5	8.0	13.5	12.5	13.0
28	8.5	7.0	7.5	8.5	7.5	8.0	9.5	7.5	8.0	13.5	13.0	13.0
29	8.5	7.0	7.5	8.5	7.5	7.5	9.0	7.5	8.0	13.5	13.0	13.5
30	9.0	7.0	7.5	8.5	7.5	7.5	9.0	7.5	8.0	13.5	13.5	13.5
31	---	---	---	8.5	7.0	8.0	9.0	7.5	8.0	---	---	---
MONTH	9.0	6.0	7.0	9.0	7.0	7.5	9.5	7.0	8.0	13.5	7.5	11.0
YEAR	14.5	4.5	8.0									

14146500 SALMON CREEK NEAR OAKRIDGE, OR

LOCATION.--Lat 43°45'45", long 122°22'18", in NE 1/4 sec.7, T.21 S., R.4 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 190 ft upstream from Salmon Creek Falls, 0.1 mi upstream from Needle Creek, 4.6 mi east of Oakridge, and at mile 5.84.

DRAINAGE AREA.--117 mi², at measuring cable 0.25 mi downstream from gage.

PERIOD OF RECORD.--October to November 1909 (gage heights and one discharge measurement only), February 1913 to October 1919, October 1933 to September 1985, October 1986 to September 1987. Monthly discharge only for some periods, published in WSP 1318. Published as Kelsey River near Hazeldell and Salmon Creek near Hazeldell, 1909.

REVISED RECORDS.--WSP 794: 1934(M). WSP 814: Drainage area. WSP 1124: 1935, 1942(M), 1943, 1946(M). WSP 1248: 1915, 1918. WDR OR-71-1: 1968, 1969(M,P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,462.36 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1914, nonrecording gage at several sites within 4 mi of present site at various datums. Oct. 1, 1914, to Oct. 14, 1919, water-stage recorder at site 1.8 mi downstream at different datum. Nov. 5, 1933, to Oct. 27, 1964, water-stage recorder at site 0.8 mi downstream at datum 40.53 ft lower. Oct. 28, 1964, to Aug. 27, 1965, nonrecording gage at site 0.6 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 4, Dec. 5-11, Jan. 16 to Feb. 11. Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station. All records given herein are for measuring cable site.

AVERAGE DISCHARGE.--59 years (water years 1914-19, 1934-85, 1987), 427 ft³/s, 49.56 in/yr, 309,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s Dec. 22, 1964, gage height, 9.15 ft, from floodmark, site and datum then in use, from rating curve extended above 2,100 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 63 ft³/s Jan. 8, 1937.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	0630	*1,700	*3.80				

Minimum discharge, 103 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	350	733	432	1000	300	313	404	244	150	169	118
2	260	310	608	590	1200	296	333	375	[illegible]	148	162	118
3	240	270	517	553	940	312	347	[illegible]	[illegible]	148	158	116
4	230	240	465	496	760	343	344	[illegible]	[illegible]	146	156	116
5	230	206	430	427	660	372	331	[illegible]	[illegible]	146	153	114
6	220	211	410	373	580	399	323	[illegible]	[illegible]	145	151	114
7	210	271	390	332	540	374	320	[illegible]	[illegible]	143	148	114
8	210	314	360	295	510	360	351	[illegible]	[illegible]	142	145	114
9	200	498	340	280	500	348	347	[illegible]	194	140	142	114
10	190	518	320	270	490	333	360	[illegible]	188	142	140	112
11	180	406	290	259	460	335	393	[illegible]	[illegible]	140	138	112
12	170	369	284	264	457	396	368	[illegible]	181	137	138	112
13	165	350	291	261	583	474	354	[illegible]	[illegible]	136	137	113
14	160	351	305	264	583	478	347	[illegible]	[illegible]	134	138	114
15	160	336	284	251	541	465	348	[illegible]	[illegible]	133	138	110
16	155	323	269	230	500	433	355	[illegible]	[illegible]	133	135	114
17	155	540	259	230	513	431	379	[illegible]	171	146	133	112
18	160	585	252	220	515	443	380	[illegible]	167	303	132	112
19	155	638	245	220	486	427	354	230	165	265	130	109
20	150	725	237	210	448	402	341	221	166	207	128	109
21	150	1140	230	210	423	381	341	216	198	200	128	107
22	145	1220	232	210	398	359	355	210	183	409	128	107
23	145	1160	245	260	388	378	387	207	171	308	126	105
24	145	1030	247	460	366	373	395	212	167	266	123	105
25	145	837	246	1150	344	366	381	257	162	238	121	105
26	150	779	274	1300	325	355	370	229	159	217	122	107
27	220	1170	266	1100	316	336	393	220	158	204	121	107
28	200	1570	255	980	307	323	429	211	156	192	120	107
29	220	1210	271	740	---	310	409	207	154	184	121	105
30	400	912	274	650	---	300	397	202	151	180	118	104
31	450	---	270	600	---	299	---	244	---	174	118	---
TOTAL	6250	18839	10099	14117	15157	11501	10845	8916	5489	5756	4217	3332
MEAN	202	628	326	455	541	371	361	288	183	186	136	111
MAX	450	1570	733	1300	1200	478	429	404	244	409	169	118
MIN	145	206	230	210	307	296	313	202	151	133	118	104
AC-FT	12400	37370	20030	28000	30060	22810	21510	17680	10890	11420	8360	6610
CFSM	1.72	5.37	2.78	3.89	4.63	3.17	3.09	2.46	1.56	1.59	1.16	.95
IN.	1.99	5.99	3.21	4.49	4.82	3.66	3.45	2.83	1.75	1.83	1.34	1.06

WTR YR 1987 TOTAL 114518 MEAN 314 MAX 1570 MIN 104 AC-FT 227100 CFSM 2.68 IN. 36.41

14147500 NORTH FORK OF MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR

LOCATION.--Lat 43°45'25", long 122°30'15", in SW 1/4 sec.7, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, on left bank 2.5 mi northwest of Oakridge, and at mile 1.0.

DRAINAGE AREA.--246 mi², at measuring section 0.5 mi downstream.

PERIOD OF RECORD.--October 1909 to March 1916, September 1935 to September 1985, October 1986 to September 1987. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1912, published as "near Hazeldell."

REVISED RECORDS.--WSP 1248: 1914-16.

GAGE.--Water-stage recorder. Datum of gage is 1,029.6 ft above National Geodetic Vertical Datum of 1929 (river profile survey). Oct. 1, 1909, to Mar. 31, 1916, water-stage recorder or nonrecording gage at several sites within 0.8 mi of present site at various datums. Sept. 10, 1935, to Oct. 3, 1938, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 5, Apr. 10-18, June 10-12, July 20 to Aug. 27. Records good except for estimated daily discharges, which are fair. Slight regulation by Waldo Lake; occasional fluctuations during low-water periods caused by log-ponds upstream from station. No diversions upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--57 years (water years 1910-15, 1936-85, 1987), 791 ft³/s, 43.67 in/yr, 573,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft³/s Dec. 22, 1964, gage height, 19.14 ft, from floodmark, from rating curve extended above 7,100 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 22 ft³/s Aug. 20, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	0730	*4,930	*7.22	No other peak greater than base discharge.			

Minimum discharge, 106 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	660	1660	973	2790	610	625	629	373	180	250	123
2	480	560	1350	1370	3180	600	663	621	333	178	235	123
3	460	440	1150	1290	2510	616	685	630	311	174	225	122
4	450	360	1010	1190	1990	664	670	592	295	170	210	122
5	440	294	914	1020	1630	724	641	572	284	170	200	121
6	430	305	827	880	1410	793	621	572	277	167	190	119
7	420	530	749	781	1280	749	600	576	267	164	185	118
8	400	601	687	705	1180	703	663	567	274	161	175	118
9	380	859	636	651	1110	676	665	539	264	157	165	117
10	350	954	591	608	1040	641	680	509	259	162	160	117
11	340	726	560	579	1060	648	760	479	245	158	155	117
12	330	641	571	580	1000	771	700	470	235	152	155	119
13	320	601	581	579	1200	967	670	484	230	149	155	121
14	310	628	645	582	1250	1060	660	450	227	145	150	120
15	300	615	586	551	1160	1070	680	424	227	142	145	125
16	300	571	548	516	1090	956	700	400	229	141	140	125
17	300	873	519	499	1130	959	760	377	223	161	140	120
18	300	949	499	481	1140	1050	690	358	217	544	135	116
19	290	1160	488	462	1050	997	659	339	211	440	130	114
20	280	1350	460	442	961	920	627	326	207	340	129	114
21	280	2440	439	432	901	856	612	315	244	340	128	112
22	270	2840	435	430	848	790	620	304	244	760	127	110
23	270	2550	472	469	844	855	643	294	222	600	126	109
24	270	2130	477	723	801	871	647	302	211	510	125	109
25	280	1770	476	1620	747	835	630	374	202	450	124	110
26	320	1750	544	2790	698	798	605	339	195	410	123	113
27	410	3260	526	2390	665	740	623	321	189	370	124	113
28	380	4450	497	2190	634	696	662	307	184	330	122	111
29	410	3020	573	1730	---	660	636	295	181	310	122	108
30	700	2150	623	1430	---	628	617	288	182	290	121	107
31	860	---	591	1710	---	613	---	351	---	270	120	---
TOTAL	11860	40037	20684	30653	35299	24516	19714	13404	7242	8695	4791	3493
MEAN	383	1335	667	989	1261	791	657	432	241	280	155	116
MAX	860	4450	1660	2790	3180	1070	760	630	373	760	250	125
MIN	270	294	435	430	634	600	600	288	181	141	120	107
AC-FT	23520	79410	41030	60800	70020	48630	39100	26590	14360	17250	9500	6930
CFSM	1.56	5.43	2.71	4.02	5.12	3.21	2.67	1.76	.98	1.14	.63	.47
IN.	1.79	6.05	3.13	4.64	5.34	3.71	2.98	2.03	1.10	1.31	.72	.53

WTR YR 1987 TOTAL 220388 MEAN 604 MAX 4450 MIN 107 AC-FT 437100 CFSM 2.45 IN. 33.33

14148000 MIDDLE FORK WILLAMETTE RIVER BELOW NORTH FORK, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°48′05″, long 122°33′35″, in SW 1/4 sec.27, T.20 S., R.2 E., Lane County, Hydrologic Unit 17090001, on left bank 0.5 mi downstream from Whitehead Creek, 4.2 mi downstream from North Fork of Middle Fork Willamette River, 7.0 mi northwest of Oakridge, and at mile 220.2.

DRAINAGE AREA.--924 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to September 1912, July 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "near Hazeldell" 1911-12 and as "at Eula" 1923-50.

REVISED RECORDS.--WSP 694: 1925-28. WSP 814: Drainage area at Eula. WSP 1248: 1924, 1925(M), 1926-28, 1929(M), 1930, 1933, 1946(M). WSP 1398: 1927(M). WSP 1638: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 934.76 ft above National Geodetic Vertical Datum of 1929. Mar. 22, 1911, to Sept. 30, 1912, nonrecording gage at site 4.0 mi upstream, just downstream from North Fork at different datum. July 1, 1923, to Aug. 11, 1935, nonrecording gage and Aug. 12, 1935, to Sept. 30, 1950, water-stage recorder at site 4.0 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 14-26. Water-discharge records good. Flow regulated since 1961 by Hills Creek Lake (station 14145100); slight regulation at times by logponds upstream from station. No diversion upstream from station.

AVERAGE DISCHARGE.--65 years, 2,785 ft^3/s, 2,018,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,800 ft^3/s Dec. 28, 1945, gage height, 18.8 ft, from floodmark, site and datum then in use, from rating curve extended above 39,000 ft^3/s; minimum discharge, 322 ft^3/s Aug. 30, 1961, caused by closing outlet gates at Hills Creek Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1861 and prior to beginning of record, 17.0 ft in February 1890 at site used 1923-50, from information by local resident, discharge, about 55,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft^3/s Nov. 28, gage height, 6.00 ft; minimum discharge, 604 ft^3/s Sept. 6-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2600	3000	7940	3120	6720	1570	1550	1730	1230	766	932	626
2	2510	2730	6640	4930	8110	1550	1620	1890	1140	754	908	629
3	2430	2610	4900	4690	6630	1650	1680	2030	1070	730	829	636
4	2380	2550	4620	4420	5660	1820	1650	1980	1030	723	818	633
5	2370	2490	4410	3720	4920	1800	1610	1970	1030	723	823	615
6	2330	2500	4220	3080	4400	1910	1530	2020	1070	723	815	607
7	2290	3020	4040	2890	4030	1810	1400	2060	1100	711	776	607
8	2250	3200	3500	2540	3780	1730	1500	2050	1160	703	769	916
9	2240	3750	3100	2120	3600	1640	1510	1990	1160	702	750	1540
10	2220	3950	3020	1990	3420	1580	1510	1920	1140	704	720	1850
11	2200	3410	2940	1810	3800	1590	1730	1860	1120	687	719	1850
12	2190	3200	3010	1900	3650	1820	1660	1780	1010	694	712	1870
13	2180	3100	3030	2000	4140	2250	1570	1810	959	685	712	1880
14	2170	3120	3150	2000	4280	2640	1510	1580	955	672	728	1880
15	2150	3090	3030	1890	4100	2920	1500	1360	989	664	741	1890
16	2130	2990	2960	1580	3940	2420	1520	1300	997	664	701	1890
17	2190	3580	2900	1390	3340	2170	1600	1250	1000	709	689	1890
18	2220	3770	2860	1340	2610	2530	1660	1200	970	1550	676	1880
19	2210	4200	2820	1300	2460	2790	1570	1150	913	1880	673	1870
20	2190	4550	2770	1250	2290	2660	1500	1110	908	1270	668	1870
21	2210	6720	2620	1240	2180	2540	1470	1060	1090	1110	661	1870
22	2210	7500	2040	1230	2050	2420	1510	1030	1160	2640	652	1880
23	2210	6860	1590	1290	2050	2570	1600	1000	961	2580	648	1880
24	2190	5990	1640	1790	1960	2590	1630	1030	925	2040	642	1900
25	2190	5630	1740	4140	1850	2500	1600	1200	903	1490	635	1900
26	2210	5810	1940	7720	1750	2430	1540	1130	878	1270	625	1900
27	2430	8350	1940	6370	1670	2320	1600	1080	869	1220	624	1900
28	2370	11200	1880	6360	1610	1760	1720	1040	858	1160	637	1890
29	2340	8930	2020	5400	---	1620	1690	999	812	1030	635	1880
30	2700	8420	2120	4800	---	1560	1680	980	764	1000	625	1870
31	3170	---	2090	5020	---	1540	---	1110	---	986	620	---
TOTAL	71680	140220	97480	95320	101000	64700	47420	45699	30171	33240	22163	46299
MEAN	2312	4674	3145	3075	3607	2087	1581	1474	1006	1072	715	1543
MAX	3170	11200	7940	7720	8110	2920	1730	2060	1230	2640	932	1900
MIN	2130	2490	1590	1230	1610	1540	1400	980	764	664	620	607
AC-FT	142200	278100	193400	189100	200300	128300	94060	90640	59840	65930	43960	91830

CAL YR 1986 TOTAL 1106813 MEAN 3032 MAX 29300 MIN 688 AC-FT 2195000
WTR YR 1987 TOTAL 795392 MEAN 2179 MAX 11200 MIN 607 AC-FT 1578000

14148000 MIDDLE FORK WILLAMETTE RIVER BELOW NORTH FORK, NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: September 1950 to October 1960, June 1961 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since September 1950.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 23.5°C Aug. 3, 1961; minimum, 0.0°C Jan. 20-22, 1962, Feb. 2, 1979, Jan. 28-30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 20.0°C July 13, 14; minimum, 1.0°C Jan. 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	11.5	12.5	9.0	8.0	8.5	8.0	7.0	7.5	6.5	6.0	6.5
2	14.5	11.5	13.0	9.0	7.5	8.0	8.0	6.5	7.5	6.0	6.0	6.0
3	---	---	---	9.0	7.5	8.0	7.5	6.0	7.0	7.0	6.0	6.5
4	---	---	---	9.0	7.5	8.5	8.0	6.5	7.0	6.5	6.0	6.0
5	---	---	---	12.0	8.0	9.5	8.0	6.5	7.5	6.0	5.5	5.5
6	---	---	---	11.0	10.5	11.0	8.0	7.0	7.5	5.5	4.5	5.0
7	---	---	---	10.5	9.5	10.0	7.5	6.5	7.0	4.5	3.5	4.0
8	---	---	---	10.0	9.0	9.5	7.0	6.0	6.5	4.0	3.0	3.5
9	---	---	---	9.5	9.0	9.5	6.0	5.5	6.0	3.5	2.5	3.0
10	---	---	---	9.5	8.5	9.0	6.0	5.0	5.5	4.5	3.0	3.5
11	---	---	---	9.5	8.0	9.0	6.0	5.0	5.5	4.5	3.5	4.0
12	---	---	---	10.0	8.5	9.5	7.0	6.0	6.5	5.0	3.5	4.5
13	---	---	---	10.0	9.0	9.5	7.0	6.5	7.0	5.0	4.0	4.5
14	---	---	---	10.0	9.0	9.5	7.5	6.5	7.0	5.0	4.0	4.5
15	---	---	---	10.0	8.5	9.5	7.0	6.0	6.5	3.5	2.5	3.0
16	---	---	---	9.5	9.0	9.5	6.0	5.5	5.5	2.0	1.5	2.0
17	---	---	---	9.5	8.5	9.5	6.0	5.5	5.5	2.5	1.0	1.5
18	---	---	---	9.0	8.5	8.5	6.0	5.5	5.5	3.0	2.0	2.5
19	---	---	---	10.0	8.0	9.0	6.5	6.0	6.5	3.5	2.5	3.0
20	---	---	---	10.0	8.5	9.5	6.5	6.0	6.0	2.5	1.5	2.0
21	---	---	---	9.0	6.0	8.5	7.0	6.0	6.5	3.0	1.5	2.5
22	---	---	---	8.5	7.5	8.0	8.0	6.5	7.0	4.0	2.5	3.0
23	---	---	---	9.0	8.0	8.5	8.0	6.5	7.5	5.0	4.0	4.5
24	---	---	---	9.0	7.5	8.5	7.0	6.0	6.5	5.5	4.5	5.0
25	---	---	---	8.0	7.0	7.5	6.0	5.0	5.5	6.0	5.0	5.5
26	11.5	10.0	10.5	8.5	7.5	8.0	7.0	6.0	6.5	6.5	5.5	6.0
27	10.5	9.5	10.0	8.5	7.5	8.5	6.0	4.5	5.5	7.0	6.0	6.5
28	10.0	9.0	9.5	8.5	7.5	8.5	5.0	4.0	4.5	6.0	5.5	6.0
29	9.5	9.0	9.0	8.0	7.5	8.0	6.0	5.0	5.5	6.5	5.5	6.0
30	9.5	8.5	9.0	7.5	7.0	7.0	6.0	5.0	5.5	6.5	5.5	6.0
31	9.0	8.5	9.0	---	---	---	6.5	5.0	5.5	6.0	5.5	5.5
MONTH	---	---	---	12.0	7.0	9.0	8.0	4.0	6.5	7.0	1.0	4.5

14148000 MIDDLE FORK WILLAMETTE RIVER BELOW NORTH FORK, NEAR OAKRIDGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	5.5	6.5	6.5	5.0	6.0	10.5	7.0	9.0	10.0	8.5	9.0
2	7.0	5.5	6.5	7.5	6.0	6.5	10.5	7.5	9.0	8.5	7.5	8.0
3	7.5	6.5	7.0	8.0	7.0	7.5	9.0	7.5	8.0	12.0	7.5	9.5
4	7.5	6.0	7.0	8.5	6.5	7.5	9.5	7.0	8.0	12.5	9.0	10.5
5	8.5	6.0	7.0	8.0	7.5	7.5	8.0	6.5	7.5	14.0	9.5	11.5
6	7.5	4.5	6.0	7.5	6.0	7.0	8.5	7.0	8.0	14.0	10.0	12.0
7	6.5	5.0	6.0	7.0	5.0	6.0	11.0	7.5	9.0	14.0	10.5	12.5
8	6.5	5.5	6.0	6.5	5.5	6.0	10.5	8.5	9.5	13.0	10.5	12.0
9	6.5	5.0	6.0	7.0	6.0	6.5	9.5	7.0	8.5	14.5	10.5	12.0
10	8.0	6.5	7.0	7.5	6.0	7.0	9.0	7.5	8.0	14.5	10.5	12.5
11	7.5	5.5	6.5	7.0	6.0	6.5	8.0	6.5	7.0	14.0	10.5	12.0
12	6.5	5.5	6.0	7.5	6.5	7.0	9.5	6.0	8.0	12.5	11.0	11.5
13	7.0	6.5	6.5	8.0	6.5	7.5	10.0	6.5	8.0	14.5	10.0	12.0
14	6.5	6.0	6.5	7.0	6.5	7.0	11.0	7.5	9.5	15.0	10.5	12.5
15	7.0	6.0	6.5	7.5	6.0	6.5	11.5	8.0	10.0	13.0	11.5	12.5
16	6.5	6.0	6.5	7.5	6.5	7.0	11.5	8.5	10.0	14.5	10.5	12.0
17	6.5	6.0	6.5	7.5	6.5	7.0	10.5	8.0	9.5	13.0	10.0	11.5
18	6.5	5.5	6.0	6.5	5.5	6.0	8.0	6.5	7.5	13.5	10.0	11.5
19	6.5	5.0	6.0	7.0	5.0	6.0	9.5	5.5	7.5	13.0	9.0	11.0
20	6.5	5.0	6.0	7.0	5.5	6.5	10.5	6.0	8.5	13.5	8.5	11.0
21	6.5	5.5	6.0	7.5	5.5	6.5	12.0	8.0	10.0	14.0	9.5	11.5
22	6.0	5.5	5.5	7.0	5.5	6.5	12.0	9.0	10.5	14.5	10.0	12.0
23	5.5	4.5	5.0	7.5	6.5	7.0	12.5	9.5	11.0	14.0	10.0	12.0
24	5.5	4.0	5.0	8.0	6.0	7.0	12.0	8.5	10.5	12.0	10.5	11.0
25	5.0	3.5	4.0	7.5	5.5	6.5	11.5	8.0	10.0	10.5	9.5	10.0
26	5.0	3.0	4.5	8.0	6.0	7.0	13.0	8.5	11.0	10.5	9.0	9.5
27	6.5	4.5	5.5	8.0	5.5	6.5	13.5	10.0	12.0	11.5	9.0	10.0
28	6.5	5.0	6.0	8.0	5.0	6.5	12.5	10.5	11.0	12.5	9.0	10.5
29	---	---	---	8.5	5.0	7.0	12.5	9.0	11.0	14.5	10.0	12.0
30	---	---	---	9.0	5.5	7.5	11.5	10.0	10.5	12.5	11.0	11.5
31	---	---	---	10.0	6.5	8.0	---	---	---	12.0	9.5	10.5
MONTH	8.5	3.0	6.0	10.0	5.0	7.0	13.5	5.5	9.5	15.0	7.5	11.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	9.0	11.5	19.0	14.0	16.5	16.5	11.5	14.0	16.0	13.5	15.0
2	15.5	10.0	12.5	18.0	13.5	15.5	17.0	11.5	14.5	16.5	12.5	14.5
3	16.5	11.5	14.0	18.5	13.5	15.5	18.0	12.5	15.5	16.0	12.5	14.0
4	17.0	12.5	14.5	16.5	13.5	15.0	18.5	13.5	15.5	16.0	11.5	13.5
5	15.0	12.5	13.5	16.0	12.5	14.0	18.0	13.0	15.0	16.5	11.5	14.0
6	16.5	11.5	13.5	17.0	12.5	14.5	17.5	12.5	15.0	16.5	12.0	14.0
7	15.5	11.5	13.5	17.5	12.5	15.0	18.0	12.5	15.0	16.5	12.5	14.5
8	16.0	12.0	13.5	18.0	13.5	15.5	18.5	13.0	15.5	14.5	12.0	13.5
9	14.0	12.0	13.0	16.0	12.5	14.5	18.5	13.5	16.0	13.5	11.0	12.0
10	15.5	10.0	12.5	18.0	13.0	15.0	17.5	14.0	15.5	13.5	11.5	12.0
11	16.0	10.5	13.0	19.0	12.5	15.5	17.5	13.0	15.0	12.0	11.5	12.0
12	17.0	11.5	14.0	19.5	13.5	16.5	17.5	12.5	15.0	12.5	11.5	11.5
13	18.0	12.0	14.5	20.0	14.0	17.0	15.5	13.0	14.0	12.5	11.0	12.0
14	17.0	13.0	14.5	20.0	14.0	17.0	16.0	12.5	14.0	13.0	11.0	12.0
15	13.0	11.0	12.0	18.5	14.0	16.5	16.0	12.0	14.0	13.0	11.0	12.0
16	12.5	10.0	11.0	15.5	12.5	13.5	16.5	12.0	14.0	13.5	10.5	11.5
17	15.0	10.0	12.5	13.0	11.0	11.5	16.5	11.5	14.0	13.5	10.5	12.0
18	16.0	10.5	13.0	11.5	11.0	11.5	17.0	12.0	14.5	13.5	11.0	12.0
19	17.0	11.0	14.0	14.0	10.5	12.0	17.5	12.5	15.0	14.0	11.0	12.5
20	14.5	12.0	13.0	15.0	11.5	13.0	17.0	12.5	14.5	14.0	11.5	12.5
21	13.0	11.5	12.0	14.5	12.0	13.0	16.5	12.0	14.0	14.5	11.5	12.5
22	15.5	10.0	12.5	13.0	11.0	12.0	14.5	12.0	13.5	14.5	12.0	13.0
23	16.5	11.0	13.5	13.0	10.5	11.5	17.0	12.5	14.5	14.5	12.0	13.0
24	17.5	11.5	14.0	15.0	11.0	13.0	17.5	12.5	15.0	13.5	12.5	13.0
25	18.5	12.5	15.0	15.0	12.0	13.5	17.0	12.5	14.5	14.5	13.0	13.5
26	19.0	13.5	16.0	15.0	12.0	13.5	17.0	12.5	15.0	14.5	12.5	13.5
27	19.0	13.5	16.0	14.0	12.5	13.0	17.5	12.5	15.0	14.5	12.0	13.0
28	19.0	13.5	16.0	16.0	12.0	14.0	17.5	12.5	15.0	15.0	12.0	13.5
29	19.5	13.5	16.0	15.5	12.5	14.0	17.5	12.5	15.0	15.0	12.5	13.5
30	19.0	14.5	16.5	15.0	12.5	13.5	17.5	13.0	15.0	15.0	12.5	13.5
31	---	---	---	16.5	11.5	13.5	18.0	13.5	15.5	---	---	---
MONTH	19.5	9.0	13.5	20.0	10.5	14.0	18.5	11.5	15.0	16.5	10.5	13.0

14149000 LOOKOUT POINT LAKE NEAR LOWELL, OR

LOCATION.--Lat 43°54′50″, long 122°45′00″, in SE 1/4 sec.13, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, in elevator house at right end of spillway section of dam on Middle Fork Willamette River, 1.5 mi east of Lowell, and at mile 206.9.

DRAINAGE AREA.--991 mi^2.

PERIOD OF RECORD.--November 1953 to current year. Prior to October 1971, published as Lookout Point Reservoir near Lowell.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Nov. 7, 1953, to Dec. 4, 1954, approximate elevations obtained from reference marks and Dec. 5, 1954, to Feb. 4, 1955, nonrecording gage at same site and datum.

REMARKS.--Elevations for Feb. 25 to Apr. 8 based on data furnished by Corps of Engineers. Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1954 by Corps of Engineers. Planned storage began in November 1953. Total capacity is 455,800 acre-ft at elevation 929 ft, and usable capacity is 349,200 acre-ft between elevations 819 ft and 929 ft, top of spillway gates. Reservoir used for flood control, improvement of navigation, power generation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 464,900 acre-ft Dec. 26, 1964, elevation, 931.09 ft; minimum contents observed since first filling, 91,450 acre-ft Dec. 1, 1954, elevation, 811.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 329,300 acre-ft May 19, 20, elevation, 897.44 ft; minimum contents, 116,900 acre-ft Jan. 12, elevation, 824.10 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

820	108,600	860	205,500	900	338,900
830	129,500	870	235,500	910	377,400
840	152,500	880	267,800	920	417,800
850	177,700	890	302,300	930	460,200

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	887.98	866.40	858.60	828.54	840.83	865.60	881.97	891.03	897.13	894.40	889.53	857.20
2	887.48	865.41	855.61	830.14	844.36	865.85	882.28	891.49	897.14	894.08	889.24	855.47
3	886.99	864.37	852.57	830.71	845.85	866.20	883.67	892.00	897.11	893.63	888.93	853.68
4	886.55	863.30	849.14	830.95	846.32	866.64	883.01	892.51	897.05	893.23	888.53	851.85
5	886.12	862.15	845.49	830.50	846.16	867.07	883.29	893.01	897.03	892.87	888.08	850.01
6	885.61	861.05	841.66	829.47	845.92	867.60	883.56	893.55	897.02	892.49	887.70	848.15
7	885.14	860.40	837.64	828.21	846.42	868.03	883.74	894.10	897.02	892.12	887.30	846.29
8	884.64	859.82	835.74	826.66	846.69	868.44	884.03	894.61	897.05	891.68	886.85	844.88
9	884.11	859.54	834.53	825.81	846.80	868.06	884.24	895.09	897.09	891.26	886.36	844.58
10	883.60	859.48	833.71	825.40	848.30	867.05	884.53	895.51	897.09	890.83	885.86	844.45
11	883.01	858.91	832.90	824.77	850.32	866.24	884.89	895.88	897.07	890.38	885.33	844.34
12	882.42	858.17	831.66	824.26	852.18	865.97	885.24	896.30	897.03	889.93	884.82	844.25
13	881.87	857.41	830.77	824.92	854.05	866.79	885.55	896.70	896.95	889.48	884.22	844.24
14	881.28	856.61	830.04	825.54	855.08	867.93	885.80	896.94	896.87	888.94	883.25	844.20
15	880.69	854.68	829.20	826.15	855.97	869.21	885.96	897.06	896.78	888.43	882.20	844.21
16	880.07	852.68	828.29	826.48	856.77	870.14	886.27	897.19	896.71	887.86	881.10	844.18
17	879.34	851.03	827.43	826.65	858.04	870.88	886.63	897.24	896.63	887.42	879.86	844.10
18	878.58	849.62	826.72	826.75	859.06	871.43	887.01	897.28	896.57	887.85	878.51	844.00
19	877.80	848.56	826.49	826.80	860.03	873.10	887.29	897.28	896.48	888.31	877.06	843.81
20	876.99	847.97	826.27	826.80	860.91	874.09	887.54	897.27	896.44	888.39	875.66	843.81
21	875.97	849.26	825.87	826.83	861.70	875.07	887.78	897.23	896.43	888.39	874.23	843.76
22	875.02	851.10	825.06	826.90	862.39	875.87	888.03	897.17	896.44	889.33	872.77	843.71
23	874.42	852.13	825.03	827.05	863.07	876.90	888.33	897.11	896.37	890.22	871.30	843.59
24	873.38	851.55	825.30	827.77	863.69	877.90	888.66	897.09	896.24	890.56	869.78	843.48
25	872.32	849.47	825.77	830.73	864.19	878.79	888.94	897.18	896.01	890.56	868.33	843.46
26	871.34	847.25	826.23	834.61	864.61	879.62	889.21	897.21	895.79	890.59	866.75	843.63
27	870.51	850.31	826.77	836.75	865.00	880.39	889.52	897.19	895.56	890.55	865.17	843.81
28	869.63	858.81	827.15	838.17	865.30	880.80	889.89	897.14	895.36	890.43	863.58	844.20
29	868.65	862.22	827.67	838.32	---	881.18	890.26	897.08	895.10	890.26	862.00	844.31
30	867.80	861.04	827.84	838.39	---	881.43	890.63	897.02	894.80	890.04	860.35	844.41
31	867.16	---	827.58	838.62	---	881.63	---	897.06	---	889.79	858.71	---
MAX	887.98	866.40	858.60	838.62	865.30	881.63	890.63	897.28	897.14	894.40	889.53	857.20
MIN	867.16	847.25	825.03	824.26	840.83	865.60	881.97	891.03	894.80	887.42	858.71	843.46
(†)	226800	208500	124200	149200	221100	273300	304600	327900	319600	301600	201800	163300
(‡)	-70400	-18300	-84300	+25000	+71900	+52200	+31300	+23300	-8300	-18000	-99800	-38500

CAL YR 1986 MAX 926.26 MIN 824.96 AC-FT‡ +3200
WTR YR 1987 MAX 897.28 MIN 824.26 AC-FT‡ -133900

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR

LOCATION.--Lat 43°56'45", long 122°50'10", in SE 1/4 NW 1/4 sec.5, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, on right bank 0.6 mi upstream from Lost Creek, 2.0 mi northwest of Dexter, 2.6 mi downstream from Dexter Dam, and at mile 201.2.

DRAINAGE AREA.--1,001 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to September 1954 (published as "at Lowell"), June 1955 to current year. Monthly discharge only for October 1954 to June 1955, published in WSP 1738.

REVISED RECORDS.--WSP 1636: 1948(P).

GAGE.--Water-stage recorder. Datum of gage is 592.30 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 23, 1950, nonrecording gage and Aug. 23, 1950, to Sept. 30, 1954, at site 4.0 mi upstream at different datum, and June 9, 1955, to Feb. 18, 1977, at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Apr. 24 to June 2. Water-discharge records good. Flow regulated since 1953 by Lookout Point Lake (station 14149000), since 1955 by Dexter Lake (re-regulating), and since 1961 by Hills Creek Lake (station 14145100).

AVERAGE DISCHARGE.--41 years, 3,163 ft^3/s, 2,292,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,600 ft^3/s Jan. 18, 1953, gage height, 12.46 ft, site and datum then in use, from rating curve extended above 33,000 ft^3/s; minimum daily discharge, 100 ft^3/s Nov. 25, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 13.9 ft Dec. 28, 1945, former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,900 ft^3/s Dec. 1, gage height, 9.85 ft; minimum discharge, 862 ft^3/s June 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3610	4310	11600	2540	5230	1150	1100	1120	1110	1420	1440	3010
2	3420	4310	10900	3710	5230	1150	1120	1120	1110	1420	1440	3060
3	3230	4300	9210	4420	5310	1150	1110	1110	1100	1530	1450	3090
4	3150	4270	9190	4420	5520	1150	1110	1120	1100	1490	1480	3130
5	3140	4270	9010	4430	5310	1160	1110	1110	1100	1420	1550	3060
6	3160	4260	8990	4430	4820	1150	1110	1110	1110	1400	1580	3060
7	3140	4280	8970	4300	3430	1150	1110	1110	1110	1390	1630	3040
8	3160	4290	6360	4280	3470	1150	1100	1130	1080	1490	1600	2650
9	3160	4290	4300	3060	3630	2290	1100	1180	1110	1530	1610	1990
10	3160	4320	4040	2410	1560	3000	1110	1180	1140	1530	1620	1990
11	3160	4340	3850	2400	1180	2990	1110	1120	1120	1520	1660	2000
12	3130	4340	4040	2390	1190	2340	1110	1110	1100	1520	1560	1980
13	3140	4340	4040	1380	1850	1160	1110	1110	1090	1530	1740	1920
14	3110	4340	4010	1320	2960	1160	1100	1110	1110	1590	2490	1910
15	3160	5810	4000	1350	2960	1160	1100	1110	1110	1590	2520	1930
16	3150	5820	4130	1350	2890	1150	1100	1110	1100	1650	2540	1950
17	3540	5810	4250	1240	1990	1160	1100	1110	1100	1660	2830	1960
18	3540	5810	3700	1250	1130	1160	1100	1120	1090	1390	2930	1960
19	3540	5790	3020	1230	1140	1160	1100	1120	1100	1160	3090	1950
20	3540	5800	2970	1230	1140	1150	1100	1120	1110	1090	2980	1950
21	3920	5850	2950	1130	1140	1160	1100	1120	1110	1100	3000	1960
22	3700	5900	2960	1130	1140	1160	1100	1120	1110	1170	3010	1950
23	3340	5900	1590	1170	1150	1160	1100	1110	1110	1110	3010	1940
24	3910	7120	1280	1170	1150	1160	1100	1110	1220	1110	2990	1940
25	3880	8690	1410	1280	1160	1160	1090	1130	1300	1410	3020	1940
26	3870	9200	1420	4300	1160	1160	1090	1130	1290	1490	3040	1740
27	3870	6710	1420	4560	1160	1130	1080	1120	1290	1480	3050	1720
28	3910	1090	1430	5220	1160	1090	1080	1120	1290	1340	3060	1450
29	3920	4740	1470	5210	---	1110	1110	1120	1290	1360	3050	1690
30	4170	10200	1870	5210	---	1120	1110	1110	1390	1410	3050	1740
31	4300	---	2400	5210	---	1110	---	1110	---	1440	3040	---
TOTAL	108130	160500	140780	88730	71160	41610	33070	34730	34500	43740	73060	65660
MEAN	3488	5350	4541	2862	2541	1342	1102	1120	1150	1411	2357	2189
MAX	4300	10200	11600	5220	5520	3000	1120	1180	1390	1660	3090	3130
MIN	3110	1090	1280	1130	1130	1090	1080	1110	1080	1090	1440	1450
AC-FT	214500	318400	279200	176000	141100	82530	65590	68890	68430	86760	144900	130200

CAL YR 1986 TOTAL 1150290 MEAN 3151 MAX 13000 MIN 1090 AC-FT 2282000
WTR YR 1987 TOTAL 895670 MEAN 2454 MAX 11600 MIN 1080 AC-FT 1777000

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1955 to current year.

INSTRUMENTATION.--Temperature recorder since August 1955.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 19.0°C Sept. 6-9, 1987; minimum, 3.0°C Jan. 2, 7-9, Feb. 2-4, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 19.0°C Sept. 6-9; minimum, 4.0°C Jan. 21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.5	14.0	14.5	14.0	13.0	13.5	9.0	8.0	8.5	6.5	6.0	6.5
2	15.0	14.0	14.0	14.0	13.0	13.5	9.5	8.0	8.5	6.5	6.0	6.0
3	15.0	13.5	14.5	14.0	13.0	13.5	8.5	8.0	8.5	6.5	6.0	6.5
4	15.0	13.5	14.5	14.0	13.0	13.5	8.5	7.5	8.0	6.5	6.0	6.5
5	15.0	14.0	14.5	13.5	12.5	13.0	9.0	7.0	8.0	6.5	6.0	6.0
6	15.0	14.0	14.5	14.0	12.5	13.0	9.0	7.5	8.0	6.5	6.0	6.0
7	15.5	14.0	14.5	13.5	12.5	13.0	8.0	8.0	8.0	6.5	5.5	6.0
8	15.5	14.0	14.5	13.5	12.0	13.0	8.0	8.0	8.0	6.0	5.5	6.0
9	14.5	14.0	14.5	13.0	12.0	12.5	8.0	7.5	7.5	6.0	5.5	5.5
10	15.0	14.0	14.5	12.5	12.0	12.5	8.0	7.0	7.5	6.0	5.0	5.5
11	15.0	13.5	14.5	12.5	11.5	12.0	8.0	7.0	7.5	6.0	5.0	5.5
12	15.0	14.0	14.5	12.0	12.0	12.0	8.0	7.0	7.5	6.0	5.5	5.5
13	15.0	13.5	14.5	12.0	11.5	12.0	8.0	7.0	7.5	6.0	5.5	6.0
14	15.0	13.5	14.0	12.0	11.5	12.0	8.0	6.5	7.5	6.0	5.0	5.5
15	15.0	14.0	14.5	12.0	11.5	11.5	8.0	7.0	7.0	6.0	5.0	5.5
16	14.5	13.5	14.0	12.0	11.5	11.5	7.5	6.5	7.0	5.5	5.0	5.0
17	14.5	14.0	14.0	11.5	11.0	11.5	7.5	6.5	7.0	5.5	4.5	5.0
18	14.5	14.0	14.0	11.5	11.0	11.5	8.0	5.5	6.5	5.0	4.5	5.0
19	14.5	14.0	14.0	11.5	11.0	11.5	7.0	6.5	6.5	5.0	4.5	4.5
20	14.5	14.0	14.0	11.5	11.0	11.0	7.0	6.5	7.0	5.0	4.5	4.5
21	14.5	13.5	14.0	11.5	11.0	11.0	7.5	6.5	7.0	5.0	4.0	4.5
22	14.5	14.0	14.0	11.0	10.5	11.0	7.0	6.5	7.0	5.0	4.5	4.5
23	14.5	13.5	14.0	11.0	10.5	10.5	7.5	6.5	7.0	5.0	4.5	5.0
24	14.5	13.5	14.0	11.0	10.0	10.5	7.5	6.5	7.0	5.5	4.5	5.0
25	14.5	14.0	14.5	10.0	9.5	10.0	7.0	6.5	6.5	5.5	5.0	5.0
26	14.5	14.0	14.5	10.0	9.5	10.0	7.5	6.5	7.0	5.5	5.0	5.5
27	14.5	14.0	14.5	10.0	9.5	10.0	7.0	6.0	6.5	5.5	5.0	5.5
28	14.5	13.5	14.0	10.0	9.5	10.0	7.0	6.0	6.5	5.5	5.0	5.5
29	14.0	13.5	14.0	10.0	9.0	9.5	7.0	6.0	6.5	5.5	5.0	5.5
30	14.0	13.5	14.0	9.0	8.5	9.0	7.0	6.0	6.5	5.5	5.0	5.5
31	14.0	13.5	14.0	---	---	---	7.0	6.0	6.5	6.0	5.5	5.5
MONTH	15.5	13.5	14.5	14.0	8.5	11.5	9.5	5.5	7.5	6.5	4.0	5.5

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	6.0	7.5	6.5	7.0	11.5	9.0	10.0	11.0	10.0	10.5
2	6.0	5.5	6.0	8.0	6.5	7.0	11.0	9.0	9.5	11.5	10.0	10.5
3	6.0	5.5	6.0	8.0	7.5	7.5	11.0	9.0	9.5	13.0	10.5	11.5
4	6.0	6.0	6.0	8.5	7.5	8.0	10.5	9.0	10.0	---	11.0	---
5	6.5	5.5	6.0	8.5	7.5	8.0	10.0	9.0	9.5	---	---	---
6	6.5	6.0	6.0	8.5	7.0	7.5	10.5	9.0	10.0	---	---	---
7	6.5	6.0	6.0	9.0	7.0	8.0	11.0	9.5	10.0	---	---	---
8	6.5	6.0	6.5	8.5	7.5	8.0	11.0	9.0	10.0	---	---	---
9	7.0	6.0	6.5	8.5	7.5	8.0	11.5	9.0	10.0	---	---	---
10	7.5	6.5	6.5	8.0	7.5	8.0	10.5	9.0	9.5	---	---	---
11	7.5	6.5	7.0	8.0	7.0	7.5	10.5	9.0	10.0	---	---	---
12	7.0	6.5	7.0	8.0	7.5	7.5	12.0	9.0	10.0	---	---	---
13	7.5	6.5	7.0	8.0	7.5	7.5	11.5	9.0	10.0	---	---	---
14	7.5	6.5	7.0	8.5	7.0	8.0	12.0	9.5	10.5	---	---	---
15	7.5	6.5	7.0	9.5	7.0	8.0	12.0	9.5	10.5	---	---	---
16	7.0	6.5	7.0	9.0	7.5	8.0	11.5	9.5	10.0	---	---	---
17	7.5	6.5	7.0	9.0	7.5	8.0	10.5	9.5	10.0	---	---	---
18	7.5	6.5	7.0	9.0	7.5	8.0	11.0	9.5	10.0	---	---	---
19	8.0	6.5	7.0	9.5	7.5	8.0	11.5	9.5	10.5	---	---	---
20	7.5	6.5	7.0	9.5	7.5	8.5	12.0	9.5	10.5	---	---	---
21	7.5	6.5	7.0	9.5	8.0	8.5	11.5	10.0	10.5	---	---	---
22	7.0	6.5	7.0	9.5	7.5	8.5	11.5	9.5	10.5	---	---	---
23	8.0	6.5	7.0	9.5	8.0	8.5	11.5	9.5	10.5	---	---	---
24	8.0	6.0	7.0	10.0	8.0	8.5	11.5	9.5	10.5	---	---	---
25	8.0	6.0	7.0	9.5	8.0	8.5	11.5	9.5	10.5	---	---	---
26	7.5	6.0	6.5	10.0	8.0	9.0	12.5	9.5	10.5	---	---	---
27	7.5	6.0	7.0	10.0	8.0	9.0	12.5	10.0	11.0	---	---	---
28	7.5	6.0	7.0	10.5	8.0	9.0	11.5	10.0	10.5	---	---	---
29	---	---	---	10.5	8.0	9.0	12.5	9.5	10.5	---	---	---
30	---	---	---	11.0	8.0	9.5	11.5	10.0	10.5	---	---	---
31	---	---	---	11.0	8.5	9.5	---	---	---	---	---	---
MONTH	8.0	5.5	6.5	11.0	6.5	8.0	12.5	9.0	10.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	15.5	13.0	13.5	16.5	[illegible]	15.0	18.0	17.0	17.5
2	---	---	---	15.5	13.0	14.0	16.5	14.0	[illegible]	18.0	17.0	17.5
3	---	---	---	14.5	13.0	13.5	16.5	14.0	[illegible]	18.5	17.0	17.5
4	---	---	---	14.0	13.0	13.5	16.5	14.0	[illegible]	18.5	17.0	17.5
5	---	---	---	15.0	13.0	13.5	16.5	[illegible]	[illegible]	18.5	17.5	18.0
6	---	---	---	15.0	13.0	14.0	16.5	14.0	15.5	19.0	17.5	18.0
7	---	---	---	15.0	13.0	13.5	17.5	[illegible]	[illegible]	19.0	18.0	18.0
8	---	---	---	14.5	13.0	13.5	17.5	[illegible]	[illegible]	19.0	18.0	18.5
9	---	---	---	15.0	13.0	13.5	18.0	15.0	16.0	19.0	17.5	18.5
10	---	---	---	15.0	13.5	14.0	16.5	[illegible]	15.5	18.5	18.0	18.0
11	14.5	---	---	15.5	13.0	14.0	17.0	[illegible]	[illegible]	18.0	18.0	18.0
12	14.5	11.5	13.0	15.5	13.0	14.0	17.0	[illegible]	[illegible]	18.0	18.0	18.0
13	15.0	11.5	13.0	16.0	13.0	14.5	16.0	[illegible]	[illegible]	18.5	17.5	18.0
14	14.5	12.0	12.5	16.0	13.5	14.5	16.5	[illegible]	16.0	18.0	17.0	17.5
15	13.0	12.0	12.5	16.0	13.5	14.5	16.5	[illegible]	15.5	18.5	17.0	17.5
16	13.5	12.0	12.5	15.0	13.5	14.5	16.5	15.5	16.0	18.5	16.5	17.5
17	14.5	12.0	13.0	14.5	14.0	14.0	17.0	15.5	16.0	18.5	16.5	17.0
18	15.0	12.0	13.5	14.0	13.0	13.5	16.5	15.5	16.0	18.0	16.5	17.0
19	15.0	12.0	13.5	16.0	13.0	14.0	16.5	15.5	16.0	18.5	16.5	17.5
20	14.0	12.5	13.0	15.5	13.0	14.0	16.5	15.5	16.0	18.0	16.5	17.5
21	13.5	12.5	13.0	15.0	13.0	14.0	17.0	16.0	16.0	18.5	16.5	17.5
22	15.0	12.0	13.0	15.0	13.5	14.0	16.5	15.5	16.0	18.5	16.5	17.5
23	15.0	12.0	13.0	16.0	13.5	14.0	17.5	16.0	16.5	18.0	17.0	17.5
24	15.0	12.0	13.5	15.0	13.0	14.0	17.0	16.0	16.5	17.0	17.0	17.0
25	15.5	12.0	13.5	15.0	13.5	14.0	17.5	16.0	16.5	17.5	17.0	17.0
26	15.5	12.5	13.5	15.0	13.5	14.0	17.5	16.5	16.5	17.5	16.5	17.0
27	15.5	12.5	13.5	15.0	13.5	14.0	17.5	16.5	17.0	18.0	16.0	17.0
28	15.5	12.5	13.5	15.5	13.5	14.0	18.0	16.5	17.0	18.0	16.0	17.0
29	15.5	12.5	13.5	15.5	13.5	14.0	18.0	16.5	17.0	18.0	16.0	17.0
30	15.5	12.5	14.0	15.0	13.5	14.5	18.5	16.5	17.5	18.0	16.0	17.0
31	---	---	---	16.0	14.0	15.0	18.5	17.0	17.5	---	---	---
MONTH	---	---	---	16.0	13.0	14.0	18.5	14.0	16.0	19.0	16.0	17.5

14150300 FALL CREEK NEAR LOWELL, OR

LOCATION.--Lat 43°58'15", long 122°38'15", in SW 1/4 sec.25, T.18 S., R.1 E., Lane County, Hydrologic Unit 17090001, on right bank 0.1 mi downstream from North Fork, 8.0 mi northeast of Lowell, and at mile 14.4.

DRAINAGE AREA.--118 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 844.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: May 29 to June 11. Water-discharge records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--24 years, 413 ft^3/s, 47.53 in/yr, 299,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft^3/s Jan. 21, 1972, which may have been caused by release from breakup of temporary logjam 12 mi upstream, gage height, 11.84 ft; minimum discharge, 16 ft^3/s Oct. 3, 4, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0700	*4,600	*7.22	No other peak greater than base discharge.			

Minimum discharge, 23 ft^3/s Sept. 6-10, 23, 24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	362	781	864	1960	266	252	154	119	41	55	24
2	172	226	587	1240	2510	256	239	193	105	40	53	24
3	143	169	468	902	1400	257	230	208	93	40	51	24
4	123	138	389	718	923	257	217	171	87	40	49	24
5	110	122	334	542	675	256	205	152	82	41	46	24
6	99	118	289	433	534	264	203	141	78	40	44	24
7	91	633	254	354	448	239	195	130	74	38	44	23
8	84	508	230	301	388	222	255	122	76	38	42	24
9	79	722	212	263	345	216	211	115	72	37	40	24
10	75	696	196	238	308	204	226	108	69	38	38	24
11	70	427	191	220	318	220	318	103	66	38	39	24
12	66	310	242	241	286	326	386	139	64	35	38	25
13	64	249	258	291	473	490	307	161	61	34	37	27
14	61	291	304	359	618	653	258	126	60	32	40	28
15	60	260	255	340	526	665	227	115	60	31	38	36
16	59	247	224	286	508	496	207	109	61	30	37	36
17	64	600	205	253	593	588	213	101	59	39	35	30
18	92	597	194	230	738	937	252	97	55	567	34	27
19	73	825	194	210	661	853	254	92	54	334	33	26
20	64	1020	176	193	536	685	242	89	53	154	32	25
21	59	2250	165	187	469	566	226	86	76	114	31	24
22	57	2530	167	185	428	469	208	83	67	234	30	24
23	56	1860	213	230	460	681	193	81	56	163	30	24
24	57	1240	212	574	447	754	178	86	52	117	29	23
25	56	947	211	1260	392	619	165	137	50	97	28	24
26	72	1040	353	1710	345	518	157	112	47	85	28	28
27	171	2540	309	1280	308	429	149	102	45	78	27	28
28	129	3790	258	1230	283	369	144	95	44	72	27	25
29	119	1890	263	853	---	322	137	91	43	66	26	24
30	283	1130	273	641	---	288	134	83	42	62	26	23
31	533	---	251	1200	---	265	---	95	---	59	25	---
TOTAL	3452	27737	8658	17828	17880	13630	6588	3677	1970	2834	1132	770
MEAN	111	925	279	575	639	440	220	119	65.7	91.4	36.5	25.7
MAX	533	3790	781	1710	2510	937	386	208	119	567	55	36
MIN	56	118	165	185	283	204	134	81	42	30	25	23
AC-FT	6850	55020	17170	35360	35460	27040	13070	7290	3910	5620	2250	1530
CFSM	.94	7.84	2.37	4.87	5.41	3.73	1.86	1.01	.56	.77	.31	.22
IN.	1.09	8.74	2.73	5.62	5.64	4.30	2.08	1.16	.62	.89	.36	.24

CAL YR 1986 TOTAL 157745 MEAN 432 MAX 8120 MIN 21 AC-FT 312900 CFSM 3.66 IN. 49.73
WTR YR 1987 TOTAL 106156 MEAN 291 MAX 3790 MIN 23 AC-FT 210600 CFSM 2.46 IN. 33.47

14150300 FALL CREEK NEAR LOWELL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1963 to September 1987 (discontinued).

INSTRUMENTATION.-- Temperature recorder since August 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 25.0°C Aug. 1, 1979; minimum, 0.0°C at times in 1972, 1976-80.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 22.0°C June 30; minimum, 2.0°C Jan. 16, 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1							---	---	---	7.0	6.5	6.5
2							---	---	---	7.0	6.5	6.5
3							---	---	---	7.5	7.0	7.0
4							---	---	---	7.0	6.5	6.5
5							---	---	---	6.5	5.5	6.0
6							---	---	---	6.0	4.5	5.5
7							---	---	---	4.5	4.0	4.0
8							---	---	---	3.5	3.0	3.5
9							---	---	---	3.5	3.0	3.0
10							---	---	---	4.0	3.5	3.5
11							---	---	---	4.5	4.0	4.0
12							---	---	---	5.5	4.5	5.0
13							---	---	---	5.0	5.0	5.0
14							---	---	---	5.0	4.5	5.0
15							---	---	---	4.5	3.0	3.5
16							---	---	---	3.0	2.0	2.5
17							---	---	---	3.0	2.0	2.5
18							---	---	---	3.5	2.5	3.0
19							6.0	5.0	5.5	3.5	3.5	3.5
20							5.5	5.0	5.0	3.0	2.5	2.5
21							6.0	5.0	5.5	3.0	2.5	3.0
22							7.0	6.0	6.5	4.0	3.0	3.5
23							7.0	6.5	6.5	5.0	4.0	4.5
24							6.5	6.0	6.5	5.5	5.0	5.0
25							6.0	5.5	[illegible]	6.5	5.5	6.0
26							7.0	6.0	6.5	7.5	6.5	7.0
27							6.0	4.5	5.0	7.5	6.5	7.0
28							5.5	4.5	5.0	7.0	6.5	7.0
29							6.5	5.5	6.0	7.5	6.5	7.0
30							6.5	5.0	5.5	7.0	6.5	7.0
31							6.5	5.0	5.5	7.5	6.0	6.5
MONTH							---	---	---	7.5	2.0	5.0

14150300 FALL CREEK NEAR LOWELL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	6.5	7.0	7.0	6.0	6.5	10.0	7.5	9.0	11.0	9.5	10.5
2	8.0	7.0	7.5	7.5	6.5	7.0	10.0	8.0	9.0	9.5	8.5	9.0
3	8.0	7.0	7.5	8.5	7.5	8.0	9.5	8.5	9.0	12.5	9.5	11.0
4	7.5	6.5	7.0	9.0	8.0	8.5	9.5	8.0	8.5	12.5	11.0	11.5
5	7.5	6.5	7.0	9.0	8.5	9.0	8.5	7.5	8.0	14.5	11.0	12.5
6	7.5	6.0	7.0	8.5	7.0	8.0	9.0	7.5	8.5	16.5	12.5	14.0
7	7.5	6.5	7.0	7.0	5.5	6.0	10.0	8.5	9.5	17.0	13.5	15.5
8	7.5	7.0	7.5	7.0	6.0	6.5	10.0	9.0	9.5	17.5	14.5	16.0
9	8.0	7.0	7.5	7.5	7.0	7.5	9.5	7.5	8.5	18.0	14.5	16.0
10	8.5	8.0	8.0	8.0	7.0	7.5	9.0	8.0	8.5	18.0	14.0	16.0
11	8.5	7.0	8.0	7.5	7.0	7.5	8.0	7.0	7.5	18.0	14.0	15.5
12	7.5	6.0	7.0	8.0	7.5	8.0	8.5	6.5	7.5	15.5	14.0	15.0
13	8.0	7.5	8.0	8.0	7.5	8.0	9.5	6.5	8.0	15.5	13.0	14.5
14	7.5	6.5	7.0	7.5	7.0	7.0	10.5	8.0	9.0	16.0	14.0	14.5
15	7.5	7.0	7.0	7.5	6.0	6.5	11.0	8.5	10.0	14.5	12.5	13.5
16	7.0	6.5	7.0	7.5	6.5	7.0	11.0	9.0	10.0	15.0	11.5	13.0
17	7.0	6.5	7.0	7.5	7.0	7.5	10.5	8.5	9.5	12.0	11.0	11.5
18	6.5	6.0	6.5	6.5	5.5	6.0	8.0	7.0	7.5	---	10.0	---
19	6.5	5.5	6.0	7.0	5.5	6.0	8.0	6.0	7.0	---	9.0	---
20	6.5	5.0	6.0	7.0	5.5	6.5	9.5	6.0	8.0	---	8.5	---
21	6.5	6.0	6.5	7.0	5.5	6.5	10.5	8.0	9.5	---	9.5	---
22	6.5	5.5	6.0	7.5	5.0	6.5	11.5	9.0	10.5	---	9.5	---
23	5.5	4.5	5.0	7.5	6.5	7.0	13.0	10.0	11.5	---	10.0	---
24	5.5	4.5	5.0	7.5	6.0	7.0	12.0	9.0	10.5	13.0	11.0	12.0
25	4.5	3.5	4.0	7.5	5.5	6.5	11.5	9.0	10.5	11.0	10.0	10.5
26	5.0	3.5	4.5	7.5	6.0	7.0	13.5	9.5	11.5	10.5	10.0	10.5
27	6.0	4.5	5.0	7.0	5.0	6.0	15.0	11.5	13.0	11.5	10.0	11.0
28	6.5	5.0	6.0	7.0	4.5	6.0	14.0	12.5	13.5	---	10.5	---
29	---	---	---	7.5	5.0	6.0	14.5	11.5	12.5	---	10.5	---
30	---	---	---	8.0	5.5	7.0	13.0	11.5	12.5	---	11.5	---
31	---	---	---	9.0	7.0	8.0	---	---	---	11.5	10.5	11.0
MONTH	8.5	3.5	6.5	9.0	4.5	7.0	15.0	6.0	9.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.0	9.5	11.0	21.0	18.0	19.5	---	---	---	18.5	16.5	17.5
2	14.5	10.0	12.0	20.0	17.0	18.0	---	---	---	18.5	16.0	17.0
3	16.5	12.0	14.0	18.5	16.5	17.5	---	---	---	17.5	15.0	16.0
4	18.0	14.0	15.5	17.0	16.0	16.5	---	---	---	17.0	14.0	15.5
5	15.5	13.5	14.0	17.0	14.5	16.0	---	---	---	---	---	---
6	---	13.0	---	17.5	14.5	16.0	---	---	---	17.5	14.5	16.0
7	---	13.0	---	17.5	14.5	16.0	---	---	---	17.0	14.5	16.0
8	---	14.5	---	17.5	15.5	16.5	---	---	---	17.5	14.5	16.0
9	---	13.0	---	17.0	14.5	15.5	---	---	---	17.0	14.5	16.0
10	---	11.5	---	---	---	---	---	---	---	15.5	15.0	15.0
11	---	11.5	---	---	---	---	---	---	---	15.0	14.0	14.5
12	18.0	14.5	16.0	---	---	---	---	---	---	14.5	14.0	14.0
13	19.0	15.0	17.0	---	---	---	---	---	---	15.0	13.5	14.0
14	18.5	16.0	17.0	---	---	---	---	---	---	14.0	13.0	13.5
15	16.0	13.5	14.5	---	---	---	---	---	---	14.0	12.5	13.0
16	14.0	12.5	13.0	---	---	---	---	---	---	13.0	11.0	12.0
17	15.5	11.0	13.0	---	---	---	---	---	---	13.0	10.5	11.5
18	16.5	12.5	14.5	---	---	---	---	---	---	13.0	10.5	11.5
19	17.5	13.0	15.5	---	---	---	---	---	---	13.5	10.5	12.0
20	16.0	14.0	15.0	---	---	---	---	---	---	13.5	11.5	12.5
21	14.5	13.0	14.0	---	---	---	---	---	---	14.0	11.5	13.0
22	16.0	12.0	14.0	---	---	---	---	---	---	14.5	12.0	13.5
23	17.0	13.0	15.0	---	---	---	---	---	---	15.0	13.0	14.0
24	18.0	13.5	15.5	---	---	---	---	---	---	13.5	13.0	13.5
25	19.5	15.0	17.0	---	---	---	---	---	---	14.0	13.0	13.5
26	21.0	16.5	18.5	---	---	---	---	---	---	14.0	12.5	13.0
27	21.0	17.0	19.0	---	---	---	---	---	---	12.5	10.5	11.5
28	21.0	17.0	19.0	---	---	---	19.0	15.0	16.5	12.5	10.0	11.5
29	21.5	17.0	19.0	---	---	---	18.5	15.0	16.5	13.0	10.5	11.5
30	22.0	18.0	20.0	---	---	---	19.0	15.5	17.0	13.0	11.0	12.0
31	---	---	---	---	---	---	20.0	16.5	18.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

14150900 FALL CREEK LAKE NEAR LOWELL, OR

LOCATION.--Lat 43°56′40″, long 122°45′20″, in SW 1/4 sec.1, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, in regulating tower near the center of Fall Creek Dam on Fall Creek, 2.2 mi northeast of Lowell, and at mile 7.2.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--January 1966 to current year. Prior to October 1971, published as Fall Creek Reservoir near Lowell.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1965 by Corps of Engineers; storage began January 1966. Total capacity is 125,100 acre-ft at elevation 834 ft and usable capacity is 115,500 acre-ft between elevation 728 ft and 834 ft. Reservoir used for flood control, conservation, and recreation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 123,200 acre-ft May 30, 31, 1972; maximum elevation, 832.98 ft May 31, 1972; minimum contents, no contents Nov. 7 to Dec. 6, 1969, Nov. 14-16, 1970, Nov. 18-25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 112,300 acre-ft Aug. 24, elevation, 826.84 ft; minimum contents, 1,060 acre-ft Dec. 7, elevation, 692.17 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

670.4	0	725	8,340	785	53,120
679	59	735	13,270	795	64,590
685	366	745	19,480	805	77,880
695	1,400	755	26,130	815	97,750
705	2,850	765	33,770	825	109,200
715	5,200	775	42,580	833	123,200

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802.93	760.74	717.24	699.32	744.02	780.59	---	817.79	822.32	822.89	826.52	826.66
2	801.36	759.06	702.14	705.04	751.33	781.25	810.26	818.09	822.49	822.91	826.53	826.55
3	800.34	757.12	692.51	709.87	750.73	781.98	811.08	818.39	822.63	822.91	826.59	826.47
4	799.53	755.06	692.71	713.29	747.03	782.67	811.28	818.59	822.72	822.93	826.63	826.44
5	798.69	752.90	692.93	714.89	745.79	783.31	811.57	818.79	822.82	822.93	826.63	826.43
6	797.97	750.68	692.98	715.93	747.47	784.01	811.65	818.99	822.91	822.97	826.67	826.37
7	797.30	750.48	692.19	716.84	749.26	784.59	811.56	819.15	822.99	822.98	826.69	826.33
8	796.60	749.90	693.47	718.21	750.73	785.12	811.91	819.30	823.03	822.99	826.72	825.85
9	795.91	749.58	693.62	719.78	752.03	785.66	812.12	819.39	823.09	823.01	826.72	825.03
10	795.21	748.29	692.61	721.05	753.13	786.12	812.33	819.50	823.16	823.02	826.72	824.20
11	794.26	745.34	692.86	722.14	754.24	786.63	812.79	819.59	823.23	823.03	826.73	823.41
12	792.86	741.77	693.00	723.39	755.24	787.36	813.26	819.80	823.23	823.05	826.77	822.55
13	791.21	737.95	693.43	724.90	756.89	788.48	813.68	820.05	823.27	823.06	826.77	821.73
14	789.27	734.24	693.19	726.75	758.89	789.95	814.08	820.19	823.31	823.07	826.79	820.83
15	787.73	730.13	693.45	728.46	760.54	791.35	814.45	820.29	823.32	823.07	826.79	819.91
16	786.13	728.14	693.23	729.81	762.15	792.44	814.75	820.39	823.30	823.05	826.82	819.00
17	784.52	728.51	692.84	730.90	764.09	793.54	815.08	820.53	823.23	823.08	826.82	818.03
18	782.97	727.79	693.13	731.83	766.61	795.11	815.52	820.63	823.13	824.12	826.82	817.05
19	781.35	727.65	693.21	732.62	768.72	796.75	815.92	820.69	823.03	824.73	826.82	816.05
20	779.68	730.03	692.67	733.28	770.45	798.06	816.28	820.79	822.95	824.98	826.82	815.08
21	777.92	733.77	692.79	733.91	771.93	799.17	816.59	820.85	822.93	825.12	826.82	814.02
22	776.02	736.58	693.11	734.57	773.27	799.99	816.78	820.89	822.86	825.49	826.82	812.91
23	774.26	734.43	693.69	735.52	774.73	801.24	816.95	821.00	822.81	825.79	826.82	811.81
24	772.44	728.30	693.32	737.95	776.13	802.32	817.08	821.10	822.81	825.91	826.83	810.65
25	770.62	726.67	693.39	741.53	777.31	802.69	817.18	821.35	822.83	826.03	826.82	809.53
26	768.80	724.45	693.06	743.71	778.26	803.49	817.28	821.49	822.83	826.13	826.80	808.36
27	767.30	731.59	693.04	742.60	779.11	804.23	817.36	821.59	822.85	826.23	826.77	807.32
28	765.58	743.09	692.91	741.49	779.89	804.70	817.43	821.71	822.86	826.32	826.74	806.04
29	763.88	739.39	693.35	738.90	---	---	817.48	821.82	822.87	826.37	826.73	804.85
30	762.51	729.88	692.89	737.37	---	---	817.57	821.89	822.88	826.42	826.70	803.64
31	761.91	---	692.96	738.95	---	---	---	822.11	---	826.47	826.68	---
MAX	802.93	760.74	717.24	743.71	779.89	---	---	822.11	823.32	826.47	826.83	826.66
MIN	761.91	724.45	692.19	699.32	744.02	---	---	817.79	822.32	822.89	826.52	803.64
(†)	31300	10530	1150	15620	47560	82180	96830	104300	105600	111700	112000	75970
(‡)	-46130	-20770	-9380	+14470	+31940	+34620	+14650	+7470	+1300	+6100	+300	-36030

CAL YR 1986 AC-FT‡ -400
WTR YR 1987 AC-FT‡ -1460

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR

LOCATION.--Lat 43°56'40", long 122°46'25", in NW 1/4 SE 1/4 sec.2, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, on right bank 10 ft upstream from highway bridge, 1.1 mi downstream from Fall Creek Dam, 2.3 mi southeast of town of Fall Creek, and at mile 6.1.

DRAINAGE AREA.--186 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October to December 1911 (published as Big Fall Creek near Fall Creek; gage heights and discharge measurements only), September 1935 to current year.

REVISED RECORDS.--WSP 1094: 1946(M). WSP 1248: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 637.81 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Oct. 1 to Dec. 31, 1911, nonrecording gage at site 0.25 mi downstream at different datum. Sept. 9, 1935, to Aug. 3, 1950, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1966 by Fall Creek Lake (station 14150900). No diversion upstream from station.

AVERAGE DISCHARGE.--52 years, 583 ft³/s, 42.56 in/yr, 422,400 acre-ft/yr, adjusted for storage in Fall Creek Lake since January 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,700 ft³/s Dec. 11, 1956, gage height, 18.80 ft, from rating curve extended above 9,700 ft³/s; minimum discharge, 1.5 ft³/s Oct. 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,620 ft³/s Dec. 1, gage height, 8.10 ft; minimum discharge, 18 ft³/s Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1480	1010	3690	696	1060	42	45	42	39	25	31	41
2	1320	1000	2790	1180	1210	42	45	42	39	26	31	90
3	873	996	1380	714	2150	42	71	42	39	26	31	91
4	705	987	570	518	2490	41	108	42	39	26	31	46
5	705	975	485	533	1380	41	108	42	39	26	31	46
6	612	960	424	481	263	41	108	42	39	27	31	46
7	559	996	417	382	56	41	108	41	39	27	30	46
8	551	1010	264	208	56	41	124	41	39	27	29	436
9	550	1200	286	101	56	41	142	41	39	27	29	757
10	550	1530	330	101	56	41	142	41	39	27	30	752
11	664	1630	260	101	56	41	142	41	39	27	30	752
12	935	1590	353	102	56	42	142	41	39	27	30	752
13	1090	1550	362	105	57	43	72	41	39	27	31	747
14	1220	1520	475	105	57	46	42	41	39	28	31	784
15	989	1470	375	105	57	47	42	41	63	28	31	818
16	979	903	352	106	57	45	42	41	120	29	31	818
17	977	797	329	108	53	45	43	41	134	29	31	812
18	974	1060	274	108	45	46	44	41	136	30	30	829
19	964	1160	274	108	44	47	44	41	138	30	30	840
20	958	927	279	109	43	46	44	41	139	30	30	840
21	954	2190	233	110	43	46	88	41	142	31	30	863
22	943	2730	221	93	44	45	140	41	142	31	30	904
23	934	3240	251	87	45	46	142	41	83	31	30	904
24	934	3330	314	89	45	46	142	41	42	31	36	904
25	928	1770	306	674	45	46	142	42	42	31	44	898
26	917	1990	494	1810	44	46	142	41	42	31	44	898
27	909	2060	445	2190	44	46	142	40	42	31	44	898
28	901	2240	391	2080	43	45	142	39	42	31	44	898
29	898	3740	353	1990	---	45	142	39	34	31	42	892
30	971	4020	420	1400	---	45	113	39	23	31	41	892
31	1010	---	360	1010	---	45	---	39	---	31	41	---
TOTAL	27954	50581	17757	17504	9654	1362	2993	1269	1910	890	1035	19294
MEAN	902	1686	573	565	345	43.9	99.8	40.9	63.7	28.7	33.4	643
MAX	1480	4020	3690	2190	2490	47	142	42	142	31	44	904
MIN	550	797	221	87	43	41	42	39	23	25	29	41
AC-FT	55450	100300	35220	34720	19150	2700	5940	2520	3790	1770	2050	38270
MEAN†	152	1337	420	800	920	607	346	162	85.5	128	38.2	37.6
CFSM†	0.82	7.19	2.26	4.30	4.95	3.26	1.86	0.87	0.46	0.69	0.20	0.20
IN.†	0.94	8.02	2.60	4.96	5.15	3.76	2.08	1.00	0.51	0.79	0.24	0.23
AC-FT†	9320	79530	25840	49190	51090	37320	20590	9990	5090	7870	2350	2240

CAL YR 1986 TOTAL 219275 MEAN 601 MAX 4400 MIN 32 AC-FT 434900 MEAN† 600 CFSM† 3.23 IN.† 43.80 AC-FT† 434500
WTR YR 1987 TOTAL 152203 MEAN 417 MAX 4020 MIN 23 AC-FT 301900 MEAN† 415 CFSM† 2.23 IN.† 30.29 AC-FT† 300400

† Adjusted for change in contents in Fall Creek Lake.

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1950 to current year.

INSTRUMENTATION.--Temperature recorder since August 1950.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.0°C July 28, 1958; minimum recorded, 0.5°C on several days in 1962 and 1965.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.5°C Aug. 30, 31; minimum recorded, 2.5°C Jan. 20.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.5	10.5	10.5							---	---	---
2	11.0	10.5	11.0							---	---	---
3	11.5	11.0	11.0							---	---	---
4	11.5	11.0	11.5							---	---	---
5	12.0	11.5	11.5							---	---	---
6	12.0	11.5	12.0							---	---	---
7	12.0	12.0	12.0							---	---	---
8	12.5	12.0	12.0							5.5	4.5	4.5
9	12.5	12.0	12.0							4.5	3.5	4.0
10	12.5	12.0	12.5							4.0	3.5	4.0
11	12.5	12.0	12.5							4.5	3.5	4.0
12	13.0	12.5	12.5							4.0	3.5	4.0
13	13.0	12.5	13.0							4.0	3.5	4.0
14	13.5	13.0	13.0							4.0	3.5	4.0
15	13.5	13.0	13.0							4.0	3.0	3.5
16	13.5	13.0	13.5							4.0	3.0	3.5
17	13.5	13.5	13.5							3.5	3.0	3.5
18	13.5	13.5	13.5							3.5	3.0	3.0
19	14.0	13.5	13.5							3.5	3.0	3.0
20	14.0	14.0	14.0							3.5	2.5	3.5
21	14.0	14.0	14.0							3.5	3.0	3.5
22	14.0	14.0	14.0							4.0	3.5	3.5
23	---	---	---							4.0	3.5	3.5
24	---	---	---							4.0	3.5	4.0
25	---	---	---							4.0	3.5	4.0
26	---	---	---							5.0	4.0	4.0
27	---	---	---							6.0	4.5	5.5
28	---	---	---							6.0	5.0	5.5
29	---	---	---							6.5	6.0	6.0
30	---	---	---							6.0	6.0	6.0
31	---	---	---							6.5	6.0	6.5
MONTH	---	---	---							---	---	---

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	6.0	6.5	8.5	7.0	8.0	11.5	8.0	9.5	15.0	13.0	13.5
2	7.0	6.5	7.0	9.0	7.0	8.0	11.5	8.5	9.5	15.0	13.5	14.5
3	7.5	7.0	7.0	8.0	7.5	7.5	10.0	8.5	9.0	17.5	13.5	15.0
4	8.0	8.0	8.0	9.5	7.5	8.0	9.5	8.5	9.0	15.5	13.0	14.0
5	8.0	7.5	8.0	8.0	7.5	7.5	9.0	8.5	9.0	18.0	13.5	15.0
6	8.5	7.0	7.5	9.0	7.0	8.0	9.5	8.5	9.0	18.0	13.5	15.5
7	8.5	7.0	7.5	9.5	7.0	8.0	10.0	8.5	9.0	19.0	14.0	16.0
8	8.0	7.0	7.5	8.5	7.0	8.0	10.5	8.5	9.0	18.5	14.5	16.0
9	8.5	7.5	7.5	8.5	7.5	8.0	9.5	8.5	9.0	18.5	13.5	16.0
10	9.0	7.5	8.0	8.5	7.5	8.0	9.0	8.0	8.5	19.5	13.5	16.0
11	9.0	7.5	8.0	8.0	7.5	8.0	9.5	8.5	9.0	18.5	14.0	16.0
12	9.0	7.5	8.0	9.5	8.0	8.5	9.5	8.5	9.0	15.5	14.5	15.5
13	8.5	8.0	8.0	10.0	9.0	9.5	11.5	8.5	9.5	18.5	14.5	16.0
14	8.5	7.5	8.0	10.5	9.0	9.5	12.0	8.5	9.5	17.0	14.5	16.0
15	9.0	8.0	8.0	11.0	8.5	9.5	12.0	8.5	10.0	15.0	14.5	14.5
16	8.5	8.0	8.5	11.0	9.0	9.5	11.5	8.5	9.5	17.5	14.0	15.5
17	9.0	8.0	8.5	10.5	8.5	9.5	10.0	8.5	9.0	16.0	14.5	15.0
18	9.5	8.0	8.5	10.0	8.5	9.0	10.0	8.5	9.0	17.5	14.0	15.0
19	10.0	7.5	8.5	10.5	8.5	9.0	11.0	8.5	9.5	17.5	13.5	15.5
20	9.5	7.5	8.5	11.0	8.0	9.5	12.0	8.5	9.5	18.5	14.0	15.5
21	9.0	7.5	8.0	11.5	8.0	9.5	11.0	8.5	9.5	19.0	13.5	16.0
22	8.5	7.5	8.0	11.5	8.0	9.5	10.0	8.5	9.0	18.5	14.0	15.5
23	8.5	7.5	8.0	10.0	8.5	9.0	9.5	7.5	8.5	18.0	14.5	16.0
24	9.5	7.5	8.0	11.5	8.0	9.5	9.0	7.5	8.0	16.5	14.5	15.5
25	9.5	7.0	8.0	11.0	8.0	9.0	9.0	7.5	8.5	15.5	14.5	15.0
26	9.0	7.0	7.5	10.5	8.0	9.0	9.5	7.5	8.5	16.0	15.0	15.5
27	9.0	7.5	8.0	11.5	8.0	9.0	9.5	7.5	8.5	15.5	15.0	15.0
28	8.5	7.0	7.5	11.5	7.5	9.0	9.0	8.0	8.5	17.0	14.0	15.5
29	---	---	---	12.0	8.0	9.5	9.5	7.5	8.5	18.5	14.0	15.5
30	---	---	---	12.0	8.0	9.5	12.5	7.5	9.0	16.5	13.5	15.5
31	---	---	---	11.5	8.0	9.5	---	---	---	16.5	14.0	15.0
MONTH	10.0	6.0	8.0	12.0	7.0	9.0	12.5	7.5	.0	19.5	13.0	15.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	14.0	16.0	13.0	8.0	9.5	12.5	7.5	9.0	21.5	8.5	15.5
2	19.0	14.0	16.0	12.5	8.0	9.5	13.0	7.5	9.5	9.0	8.0	8.5
3	19.0	14.5	16.5	10.5	7.5	9.0	13.0	7.5	9.5	11.0	7.5	8.5
4	18.0	14.0	16.0	10.0	8.0	8.5	13.0	7.5	9.5	11.0	7.5	9.0
5	17.5	14.5	16.0	11.0	7.5	9.0	13.0	7.5	9.5	11.0	7.5	9.0
6	18.5	14.5	16.0	11.5	7.5	9.0	12.5	7.5	9.5	11.0	7.5	9.0
7	19.0	15.5	16.	11.0	7.5	9.0	13.0	7.5	9.5	10.5	8.0	8.5
8	18.5	15.5	16.5	11.5	7.5	9.0	13.0	8.0	10.0	13.5	8.0	10.5
9	19.0	15.0	16.5	11.0	7.5	8.5	12.5	8.0	9.5	12.0	11.5	11.5
10	18.5	15.0	16.5	11.5	8.0	9.5	11.0	8.0	9.0	12.0	11.5	11.5
11	19.0	15.0	17.0	13.5	7.5	9.5	12.5	7.5	9.5	11.5	11.5	11.5
12	19.5	15.0	17.0	13.5	7.5	10.0	12.5	7.5	9.5	11.5	11.5	11.5
13	19.0	15.5	17.0	13.5	7.5	10.0	10.5	8.0	9.0	12.0	11.5	11.5
14	18.5	15.5	16.5	13.5	7.5	10.0	11.0	8.0	9.0	11.5	11.5	11.5
15	16.5	15.5	16.0	13.0	7.5	9.5	12.0	8.0	9.0	11.5	11.0	11.5
16	17.0	15.5	16.0	10.0	7.5	8.5	12.0	8.0	9.5	11.5	11.0	11.5
17	17.0	15.0	16.5	8.5	7.5	8.0	12.5	7.5	9.0	11.5	8.0	9.5
18	18.0	15.5	17.0	9.0	8.0	8.5	12.5	7.5	9.5	8.5	8.0	8.5
19	18.0	8.5	14.0	12.5	8.0	9.5	12.5	7.5	9.5	8.5	8.0	8.5
20	10.0	9.0	9.0	12.0	7.5	9.0	12.5	7.5	9.5	8.5	8.5	8.5
21	9.5	8.5	9.0	11.0	8.0	9.0	12.5	7.5	9.0	8.5	8.5	8.5
22	10.0	8.5	9.0	11.5	8.0	9.0	10.0	7.5	8.5	9.0	8.5	8.5
23	12.5	8.5	10.0	12.5	7.5	9.5	12.0	8.0	9.5	9.0	8.5	8.5
24	13.0	8.5	10.0	10.0	8.0	9.0	20.5	7.5	13.5	8.5	8.5	8.5
25	13.0	9.0	10.5	11.0	8.0	9.0	22.0	18.0	19.5	9.0	8.5	9.0
26	13.0	9.0	10.5	10.5	8.0	8.5	22.0	18.5	20.0	9.0	9.0	9.0
27	13.0	9.0	10.5	10.0	8.0	9.0	22.0	18.5	20.0	9.0	9.0	9.0
28	13.0	9.0	10.5	12.5	8.0	9.5	22.0	18.5	20.0	9.0	9.0	9.0
29	14.5	8.5	11.0	11.5	8.0	9.0	22.0	19.0	20.0	9.5	9.0	9.0
30	15.0	8.0	10.5	10.5	8.0	9.0	22.5	19.0	20.5	9.5	9.0	9.5
31	---	---	---	12.5	7.5	9.5	22.5	19.0	20.5	---	---	---
MONTH	19.5	8.0	14.0	13.5	7.5	9.0	22.5	7.5	12.0	21.5	7.5	10.0

14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR

LOCATION.--Lat 43°59'55", long 122°54'20", in SW 1/4 SW 1/4 sec.14, T.18 S., R.2 W., Lane County, Hydrologic Unit 17090001, on right bank 25 ft downstream from highway bridge at Jasper, 0.1 mi downstream from Hills Creek, and at mile 195.0.

DRAINAGE AREA.--1,340 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1905 to February 1912, July 1913 to March 1917, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1907-8, 1910-12, 1914-16, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 513.45 ft above National Geodetic Vertical Datum of 1929. September 1905 to February 1912 and July 1913 to March 1917, nonrecording gage at approximately same site at datum about 1.5 ft higher Oct. 22, 1952, to Sept. 30, 1953, nonrecording gage at site 25 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since 1953 by Lookout Point Lake (station 14149000), since 1961 by Hills Creek Lake (station 14145100), and since 1966 by Fall Creek Lake (station 14150900).

AVERAGE DISCHARGE.--44 years (water years 1906-11, 1914-16, 1953-87), 4,115 ft^3/s, 2,981,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,000 ft^3/s Nov. 23, 1909, gage height, 17.4 ft, datum then in use, from graph based on gage readings, from rating curve extended above 42,000 ft^3/s; minimum discharge, 366 ft^3/s Dec. 5, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,000 ft^3/s Nov. 30, gage height, 8.93 ft; minimum discharge, 1,020 ft^3/s June 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5220	5520	17600	4180	8510	1560	1440	1340	1310	1490	1510	3120
2	4870	5410	15800	6100	9320	1540	1440	1370	1280	1490	1510	3180
3	4250	5360	11700	6240	9100	1530	1450	1380	1250	1600	1520	3260
4	3960	5290	10500	5760	9320	1510	1480	1340	1240	1590	1540	3220
5	3940	5250	10100	5620	7790	1510	1480	1340	1240	1500	1620	3160
6	3870	5230	9930	5550	6000	1520	1480	1310	1240	1480	1650	3160
7	3770	5440	9860	5200	4170	1500	1480	1290	1240	1460	1710	3150
8	3770	5480	7260	4950	4090	1480	1530	1310	1210	1550	1670	3110
9	3770	5750	4880	3760	4200	2510	1520	1350	1220	1610	1690	2820
10	3780	6130	4660	3030	2320	3350	1520	1340	1260	1610	1700	2790
11	3860	6180	4430	2940	1690	3350	1610	1300	1240	1600	1740	2800
12	4090	6080	4710	2960	1650	2900	1640	1290	1210	1600	1640	2780
13	4270	6000	4720	2110	2370	1670	1540	1300	1200	1600	1830	2710
14	4400	6040	4970	1960	3830	1850	1440	128[illegible]	1210	1660	2520	2750
15	4180	7400	4780	1970	3740	1920	1420	128[illegible]	1240	1670	2620	2800
16	4170	7000	4800	1910	3620	1770	1400	1280	1290	1730	2640	2820
17	4510	6830	4850	1770	2910	1770	1400	1270	1310	1750	2910	2820
18	4540	7210	4360	1740	2030	1970	1430	1280	1300	1690	3000	2840
19	4510	7440	3730	1690	1920	1990	1420	1270	1300	1500	3170	2840
20	4500	7490	3610	1670	1820	1870	1400	12[illegible]	1330	1240	3070	2840
21	4820	9540	3540	1570	1800	1780	1410	12[illegible]	1340	1200	3090	2850
22	4660	11000	3520	1530	1770	1710	1470	1260	1330	1280	3110	2910
23	4290	10900	2350	1580	1830	1860	1460	[illegible]	1270	1210	3110	2900
24	4820	11900	1920	1890	1780	1840	1440	12[illegible]	1300	1200	3090	2890
25	4790	11500	2040	2940	1720	1760	1430	1320	1390	1480	3120	2890
26	4780	12600	2300	7370	1670	1700	1420	1300	1380	1590	3140	2700
27	4830	12500	2260	8170	1630	1620	1400	1280	1380	1560	3150	2650
28	4850	7370	2160	8790	1590	1540	1380	1280	1370	1430	3150	2380
29	4840	10700	2190	8300	---	1530	1410	1270	1370	1430	3160	2580
30	5210	16100	2710	7540	---	1500	1410	1270	1450	1480	3150	2650
31	5600	---	3160	7340	---	1470	---	1290	---	1510	3140	---
TOTAL	137720	236640	175400	128130	104190	57380	43750	40250	38700	46790	75670	86370
MEAN	4443	7888	5658	4133	3721	1851	1458	1298	1290	1509	2441	2879
MAX	5600	16100	17600	8790	9320	3350	1640	1380	1450	1750	3170	3260
MIN	3770	5230	1920	1530	1590	1470	1380	1260	1200	1200	1510	2380
AC-FT	273200	469400	347900	254100	206700	113800	86780	79840	76760	92810	150100	171300

CAL YR 1986 TOTAL 1555210 MEAN 4261 MAX 20900 MIN 1210 AC-FT 3085000
WTR YR 1987 TOTAL 1170990 MEAN 3208 MAX 17600 MIN 1200 AC-FT 2323000

14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1953 to December 1962, October 1963 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder October 1953 to December 1962, October 1963 to September 1987.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 21.0°C June 1, 2, 1978; minimum, 1.5°C Jan. 25-27, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 20.0°C Aug. 8, 9, 31, Sept. 6; minimum recorded, 4.5°C Feb. 25.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.0	12.5	12.5	13.0	12.5	13.0	8.5	8.0	8.5			
2	13.5	12.5	13.0	13.0	12.5	13.0	8.5	8.0	8.0			
3	14.5	12.5	13.5	13.0	12.5	13.0	8.5	8.0	8.0			
4	14.5	13.0	13.5	12.5	12.5	12.5	8.5	8.0	8.0			
5	14.5	13.5	14.0	13.0	12.5	12.5	8.0	7.5	8.0			
6	15.0	13.5	14.0	12.5	12.5	12.5	8.0	8.0	8.0			
7	15.0	14.0	14.0	12.5	12.0	12.5	8.0	7.5	8.0			
8	15.0	13.5	14.0	12.0	12.0	12.0	8.5	7.5	7.5			
9	14.0	14.0	14.0	12.0	11.5	11.5	7.5	6.5	7.0			
10	14.5	13.5	14.0	11.5	11.0	11.0	6.5	6.5	6.5			
11	14.5	13.0	14.0	11.0	11.0	11.0	6.5	6.5	6.5			
12	14.5	13.0	13.5	11.0	11.0	11.0	7.0	6.5	6.5			
13	14.5	13.0	13.5	11.0	11.0	11.0	7.0	7.0	7.0			
14	14.5	13.5	13.5	11.0	11.0	11.0	7.5	7.0	7.0			
15	14.5	13.5	14.0	11.0	11.0	11.0	7.0	6.5	7.0			
16	14.0	13.5	14.0	11.0	11.0	11.0	7.0	6.5	6.5			
17	14.0	14.0	14.0	11.0	11.0	11.0	6.5	6.5	6.5			
18	14.5	14.0	14.0	11.0	10.5	10.5	6.5	6.0	6.0			
19	14.0	14.0	14.0	10.5	10.5	10.5	6.5	6.0	6.5			
20	14.5	13.5	14.0	10.5	10.5	10.5	6.5	6.0	6.5			
21	14.5	12.5	13.5	10.5	10.0	10.5	7.0	6.5	6.5			
22	14.5	14.0	14.0	10.0	9.5	10.0	7.0	6.5	7.0			
23	14.0	13.5	14.0	9.5	9.5	9.5	7.0	7.0	7.0			
24	14.5	14.0	14.0	9.5	9.5	9.5	7.0	6.5	7.0			
25	14.5	14.5	14.5	9.5	9.0	9.0	6.5	6.5	6.5			
26	14.5	14.5	14.5	9.5	9.5	9.5	7.0	6.5	7.0			
27	14.5	14.0	14.5	10.0	9.5	9.5	6.5	5.5	6.0			
28	14.0	14.0	14.0	10.0	8.5	10.0	---	---	---			
29	14.0	13.5	14.0	10.0	8.0	9.5	---	---	---			
30	13.5	13.5	13.5	9.5	8.0	9.0	---	---	- -			
31	13.5	13.0	13.5	---	---	---	---	---	---			
MONTH	15.0	12.5	14.0	13.0	8.0	11.0	---	---	---			

14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.0	6.5	7.5	13.0	8.0	10.5	12.0	10.0	11.0
2	---	---	---	8.5	7.0	7.5	12.5	8.5	10.0	11.5	10.0	11.0
3	---	---	---	8.5	8.0	8.5	11.0	9.0	9.5	15.5	10.5	12.5
4	---	---	---	9.5	8.0	8.5	11.5	8.5	10.0	14.0	11.5	12.5
5	---	---	---	9.0	8.0	8.5	10.0	8.5	9.0	16.0	10.5	12.5
6	---	---	---	9.5	7.5	8.0	11.0	8.5	9.5	17.0	11.5	13.5
7	---	---	---	9.5	6.5	7.5	12.0	9.0	10.5	17.0	12.0	14.0
8	---	---	---	9.0	7.0	8.0	12.5	9.0	10.5	17.5	12.0	14.0
9	---	---	---	8.5	7.5	8.0	12.0	8.0	10.0	17.5	12.0	14.5
10	---	---	---	8.5	7.5	8.0	10.0	8.5	9.0	17.5	11.5	14.0
11	---	---	---	8.0	7.5	8.0	10.5	8.0	9.0	17.0	11.5	14.0
12	---	---	---	8.5	8.0	8.5	12.5	8.0	10.0	14.0	12.5	13.0
13	---	---	---	9.5	8.0	8.5	12.5	8.0	10.0	16.5	12.0	14.0
14	---	---	---	9.0	8.0	8.5	13.5	8.5	10.5	16.0	12.5	13.5
15	---	---	---	10.0	7.0	8.5	14.0	9.5	11.0	12.5	11.5	12.5
16	---	---	---	10.0	7.5	8.5	13.0	9.5	11.0	15.5	10.5	13.0
17	---	---	---	9.5	8.0	8.5	11.0	9.0	10.0	13.0	11.0	12.0
18	---	---	---	9.0	7.0	8.0	11.0	8.5	9.5	15.0	10.5	12.5
19	8.0	6.0	7.0	9.5	7.0	8.0	12.5	8.0	10.0	15.5	10.5	12.5
20	8.0	6.0	7.0	9.0	7.0	8.0	---	---	---	16.0	10.5	13.0
21	8.0	7.0	7.5	10.0	7.0	8.0	---	---	---	16.5	11.0	13.0
22	7.5	6.5	7.0	10.0	6.5	8.0	13.5	9.5	11.5	16.0	11.0	13.5
23	8.0	6.0	7.0	9.5	8.0	8.5	14.5	10.0	11.5	15.5	11.0	13.0
24	7.5	5.5	6.5	10.5	7.0	8.5	13.5	9.5	11.0	13.0	12.0	12.5
25	7.5	4.5	6.0	9.0	7.0	8.0	13.5	9.0	11.0	12.5	11.5	12.0
26	7.0	5.0	6.0	10.0	7.0	8.5	15.0	9.5	12.0	15.0	11.0	12.5
27	7.5	5.5	6.5	10.5	6.5	8.0	15.5	10.0	12.5	13.0	11.5	12.0
28	8.0	6.0	7.0	10.5	6.5	8.0	13.0	11.0	12.0	14.5	11.0	12.5
29	---	---	---	11.5	7.0	8.5	15.0	10.0	12.0	16.0	11.5	13.0
30	---	---	---	12.0	7.0	9.0	12.5	10.5	11.5	13.5	11.5	12.5
31	---	---	---	12.0	8.0	9.5	---	---	---	14.0	11.5	12.0
MONTH	---	---	---	12.0	6.5	8.0	---	---	---	17.5	10.0	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	10.5	13.0	18.0	13.5	15.0	18.5	14.0	16.0	19.0	17.0	18.0
2	17.0	11.0	13.5	18.0	13.5	15.5	19.5	14.0	16.5	19.5	17.0	17.5
3	17.5	11.5	14.0	15.0	13.5	14.5	19.5	14.5	16.5	19.0	16.5	17.5
4	17.5	12.5	14.5	15.5	13.5	14.5	19.0	14.5	16.5	19.5	17.0	18.0
5	14.5	12.5	13.5	16.5	13.5	14.5	19.0	14.5	16.0	19.5	17.0	18.0
6	17.0	12.0	14.0	17.0	13.5	15.0	19.0	14.5	16.0	20.0	17.5	18.5
7	16.5	12.0	14.0	17.0	13.0	15.0	19.5	14.5	16.5	19.5	17.5	18.5
8	17.5	12.5	14.5	16.0	13.5	14.5	20.0	15.0	17.0	19.5	16.0	18.0
9	17.5	12.5	14.5	16.5	13.0	14.5	20.0	15.5	17.0	18.0	15.5	16.5
10	17.5	12.5	14.5	17.5	14.0	15.5	18.0	15.5	16.5	16.5	15.5	16.0
11	17.5	12.0	14.5	18.5	13.5	15.5	19.0	15.0	16.5	16.5	15.5	16.0
12	18.0	12.5	15.0	18.5	13.5	15.5	19.5	15.0	16.5	16.0	15.5	16.0
13	18.5	12.5	15.0	19.0	13.5	16.0	17.5	15.5	16.0	17.0	15.5	16.0
14	18.0	13.0	14.5	19.0	14.0	16.0	17.5	15.5	16.5	16.0	15.0	15.5
15	14.0	12.5	13.5	18.0	13.5	15.5	17.5	15.5	16.5	17.0	14.5	15.5
16	16.0	12.5	14.0	16.0	13.5	14.5	18.5	15.5	16.5	17.0	14.0	15.0
17	17.5	12.0	14.5	14.5	14.0	14.5	18.5	15.5	16.5	17.0	13.5	15.0
18	18.5	12.5	15.0	14.0	13.5	14.0	18.5	15.5	16.5	16.0	13.0	14.0
19	18.5	12.5	15.5	18.0	13.0	15.0	18.5	15.5	16.5	16.0	13.0	14.0
20	15.0	12.5	14.0	18.5	13.5	15.5	18.0	15.5	16.5	15.5	13.0	14.0
21	14.5	12.5	13.5	17.5	14.0	15.5	18.5	15.5	16.5	16.0	13.0	14.5
22	17.5	11.5	14.0	17.0	14.0	15.0	17.5	15.5	16.5	16.0	13.0	14.0
23	18.0	12.0	14.5	18.5	13.5	15.5	18.5	16.5	17.0	15.5	13.0	14.0
24	18.0	12.5	15.0	16.0	14.0	15.0	18.5	16.0	17.0	14.0	13.5	13.5
25	18.5	13.0	15.5	16.5	14.0	15.0	19.0	16.0	17.0	14.5	13.5	14.0
26	19.0	13.5	15.5	16.0	14.0	14.5	19.0	16.5	17.5	15.0	13.0	14.0
27	19.0	13.5	15.5	16.5	14.0	15.0	19.0	16.5	17.5	15.5	12.5	13.5
28	19.0	13.0	15.5	18.0	14.0	15.5	19.5	16.5	17.5	15.5	12.5	13.5
29	19.0	13.5	15.5	17.0	14.0	15.5	19.5	16.5	17.5	15.5	12.5	13.5
30	19.0	13.5	15.5	16.5	14.0	15.0	19.5	17.0	18.0	15.5	13.0	14.0
31	---	---	---	18.5	14.0	16.0	20.0	17.0	18.0	---	---	---
MONTH	19.0	10.5	14.5	19.0	13.0	15.0	20.0	14.0	16.5	20.0	12.5	15.5

14152500 COAST FORK WILLAMETTE RIVER AT LONDON, OR

LOCATION.--Lat 43°38'30", long 123°05'05", in SW 1/4 sec.20, T.22 S., R.3 W., Lane County, Hydrologic Unit 17090002, on left bank 0.6 mi north of London, 11.0 mi south of Cottage Grove, and at mile 35.9.

DRAINAGE AREA.--72.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to September 1987 (discontinued).

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 852.58 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Sept. 18 to Oct. 17, 1935, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: July 22 to Aug. 13. Water-discharge records good, except for estimated daily discharges, which are fair. No regulation. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--52 years, 201 ft^3/s, 37.86 in/yr, 145,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s Dec. 22, 1964, gage height, 13.37 ft, from rating curve extended above 3,200 ft^3/s, on basis of slope-area measurement of peak flow; minimum discharge, 6.8 ft^3/s Aug. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0700	*2,380	*6.20	Feb. 2	0130	2,320	6.12

Minimum discharge, 10 ft^3/s Aug. 30, 31, Sept. 1, 6, 9, 19-23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	129	326	728	1150	149	115	68	57	16	20	11
2	51	87	250	750	1580	142	109	68	45	16	19	11
3	43	67	202	599	756	138	108	71	38	17	18	11
4	39	55	170	481	514	139	103	62	36	18	17	11
5	35	48	147	351	387	139	97	59	37	19	17	11
6	32	43	128	277	315	141	94	56	37	18	17	11
7	30	107	113	224	267	130	91	51	31	16	16	11
8	27	116	103	191	234	124	100	47	31	16	16	11
9	26	106	95	165	210	124	92	45	29	17	16	11
10	26	120	90	147	191	116	100	42	29	17	15	11
11	24	93	88	134	198	123	130	41	29	17	15	12
12	23	75	92	179	182	178	132	44	25	14	15	13
13	22	63	107	225	295	222	118	43	24	13	15	13
14	21	62	120	215	451	338	105	39	24	12	15	12
15	20	57	106	194	355	362	95	40	25	12	16	14
16	20	51	95	172	334	270	88	41	28	16	15	13
17	22	53	85	153	302	256	88	38	25	21	14	12
18	33	67	86	139	294	317	97	39	23	124	14	11
19	25	129	102	126	260	324	96	38	23	173	14	11
20	22	254	95	116	232	288	86	36	23	65	13	10
21	21	530	88	110	246	250	82	36	32	50	14	11
22	20	897	104	105	245	214	78	35	30	150	13	10
23	20	417	195	120	254	268	75	35	23	110	13	10
24	21	312	189	320	233	277	71	36	21	76	12	11
25	21	280	166	843	210	236	67	52	21	58	12	13
26	31	295	187	829	191	198	63	44	20	46	12	14
27	66	1270	167	691	174	174	59	39	18	36	11	14
28	47	1940	144	754	162	156	57	37	18	30	11	14
29	54	822	186	508	---	142	56	36	17	26	11	14
30	121	468	214	383	---	130	59	35	17	22	11	13
31	166	---	183	410	---	121	---	58	---	21	11	---
TOTAL	1191	9013	4423	10639	10222	6186	2711	1411	836	1262	448	355
MEAN	38.4	300	143	343	365	200	90.4	45.5	27.9	40.7	14.5	11.8
MAX	166	1940	326	843	1580	362	132	71	57	173	20	14
MIN	20	43	85	105	162	116	56	35	17	12	11	10
AC-FT	2360	17880	8770	21100	20280	12270	5380	2800	1660	2500	889	704
CFSM	.53	4.17	1.98	4.76	5.06	2.7[illegible]	1.25	.63	.39	.56	.20	.16
IN.	.61	4.65	2.28	5.49	5.27	3.19	1.40	.73	.43	.65	.23	.18

CAL YR 1986 TOTAL 65613 MEAN 180 MAX 3190 MIN 10 AC-FT 130100 CFSM 2.49 IN. 33.85
WTR YR 1987 TOTAL 48697 MEAN 133 MAX 1940 MIN 10 AC-FT 96590 CFSM 1.85 IN. 25.13

14152500 COAST FORK WILLAMETTE RIVER AT LONDON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1960 to September 1965, June 1967 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder July 1960 to September 1965 and since June 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 25.5°C July 7, 1968, Aug. 11, 1971; minimum, 0.0°C Jan. 9, 1974, and several days each winter 1976 through 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 23.5°C June 30, July 13, 14; minimum recorded, 2.5°C Dec. 10.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.5	10.5	10.5	9.5	8.5	8.5	7.0	5.5	6.5	7.5	6.5	6.5
2	10.5	9.0	10.0	8.5	8.0	8.5	7.0	6.5	6.5	7.5	7.0	7.0
3	10.5	8.5	9.5	8.0	7.0	7.5	6.5	5.5	6.0	7.5	7.0	7.0
4	11.0	9.0	10.0	7.5	7.5	7.5	6.0	5.5	6.0	7.5	6.5	7.0
5	12.5	10.0	11.0	8.0	7.5	7.5	6.5	5.5	6.0	7.5	6.0	6.5
6	13.0	10.0	11.5	8.0	7.5	7.5	6.5	6.5	6.5	6.5	6.0	6.5
7	13.5	11.0	11.5	8.5	7.5	7.5	6.5	6.0	6.0	6.0	5.0	5.5
8	12.5	10.0	11.5	8.0	7.0	7.5	6.0	5.0	5.5	---	3.5	---
9	11.0	10.0	10.5	8.5	7.5	8.0	5.0	4.5	5.0	6.0	4.0	5.0
10	10.5	10.0	10.0	8.5	7.0	7.5	5.0	2.5	4.0	5.5	4.0	5.0
11	11.5	9.5	10.5	7.5	6.0	6.5	4.5	3.5	4.0	6.0	4.5	5.0
12	10.0	8.0	9.5	7.0	6.5	6.5	5.0	4.5	4.5	6.0	5.5	6.0
13	10.0	7.5	9.0	7.0	6.5	7.0	6.0	5.0	5.5	6.0	5.5	6.0
14	10.5	8.0	9.0	8.0	7.0	7.5	6.5	5.5	6.0	6.5	6.0	6.0
15	10.5	8.0	9.5	8.0	7.5	8.0	6.5	4.5	5.5	6.5	4.0	5.5
16	10.0	8.5	9.5	7.5	7.0	7.5	5.0	4.0	4.5	---	3.0	---
17	9.5	9.0	9.5	8.5	7.5	8.0	4.5	4.5	4.5	---	---	---
18	10.5	9.5	10.0	8.5	7.0	7.5	4.5	3.5	4.0	5.0	3.5	4.0
19	10.0	10.0	10.0	8.0	7.5	7.5	5.5	4.5	5.0	5.0	4.0	4.5
20	10.5	8.5	9.5	9.0	8.0	8.5	5.0	4.0	4.5	4.5	4.0	4.5
21	10.0	8.5	9.0	8.5	8.0	8.5	6.0	4.5	5.5	5.0	3.5	4.0
22	10.5	9.0	9.5	8.5	8.0	8.5	6.5	5.5	6.0	5.0	4.0	4.5
23	9.5	8.5	9.0	8.5	8.0	8.5	6.5	6.0	6.5	5.5	5.0	5.0
24	10.5	9.0	9.5	8.5	8.0	8.0	6.5	6.0	6.5	6.5	5.5	6.0
25	12.0	10.0	11.0	8.0	6.0	6.5	6.5	5.5	6.0	7.5	6.5	7.0
26	11.5	11.0	11.0	7.5	7.0	7.5	7.0	6.0	6.5	8.0	7.5	7.5
27	11.0	10.5	11.0	8.5	7.5	8.0	7.0	5.0	6.0	8.0	7.0	7.5
28	11.0	9.5	10.0	8.5	8.0	8.5	6.0	5.0	5.5	7.5	7.0	7.5
29	9.5	8.5	9.0	8.5	7.5	8.0	7.0	6.0	6.5	7.5	7.0	7.5
30	9.5	9.0	9.5	7.5	6.0	7.0	6.5	5.5	6.0	7.5	7.0	7.5
31	10.0	9.5	9.5	---	---	---	6.5	5.5	6.0	8.0	7.0	7.5
MONTH	13.5	7.5	10.0	9.5	6.0	7.5	7.0	2.5	5.5	---	---	---

14152500 COAST FORK WILLAMETTE RIVER AT LONDON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.5	8.0	7.5	6.5	7.0	11.0	8.5	10.0	12.0	10.5	11.0
2	8.0	8.0	8.0	8.5	7.0	7.5	11.0	8.5	10.0	10.5	9.5	10.0
3	8.5	7.5	8.0	9.5	8.5	9.0	10.5	9.0	9.5	14.0	10.0	11.5
4	8.5	7.5	8.0	10.0	8.5	9.5	11.0	9.0	9.5	13.0	12.0	12.0
5	8.5	7.0	8.0	9.5	9.5	9.5	10.0	8.0	9.0	15.0	11.0	13.0
6	8.5	6.5	8.0	9.5	8.0	8.5	9.5	8.0	9.0	17.0	12.5	14.5
7	8.5	7.0	8.0	8.5	7.0	7.5	12.0	9.0	10.5	18.5	14.0	16.0
8	9.0	7.5	8.0	8.0	7.0	7.5	12.0	10.0	11.0	19.0	14.5	17.0
9	8.5	7.5	8.0	8.5	7.5	8.0	10.5	8.5	10.0	19.0	15.0	17.0
10	9.0	8.0	8.5	8.5	8.0	8.5	10.5	9.0	9.5	18.5	14.0	16.5
11	9.0	8.0	8.5	8.5	7.5	8.0	9.0	8.0	8.5	17.0	13.5	15.5
12	8.5	7.0	7.5	9.0	8.5	8.5	10.0	7.5	8.5	15.5	14.0	15.0
13	8.5	8.0	8.0	9.0	8.0	8.5	10.5	7.5	9.5	17.0	13.5	15.5
14	8.0	7.5	8.0	8.5	7.5	8.0	11.5	8.5	10.5	17.5	14.5	16.0
15	8.0	7.5	8.0	8.0	7.0	7.5	12.5	9.5	11.0	15.5	13.0	14.5
16	7.5	7.0	7.5	8.5	7.5	8.0	12.5	10.0	11.5	15.0	12.0	13.0
17	8.0	7.5	8.0	8.5	7.5	8.0	11.5	10.0	10.5	12.5	11.0	11.5
18	8.0	7.0	7.5	7.5	7.0	7.5	10.0	7.5	8.5	14.0	10.5	12.0
19	7.5	5.5	7.0	7.5	6.5	7.0	9.5	7.0	8.5	13.5	10.0	11.5
20	7.5	6.5	7.0	7.5	6.0	7.0	10.5	7.0	9.0	14.0	10.0	11.5
21	7.5	7.0	7.0	8.0	6.5	7.5	12.0	8.5	10.5	14.5	10.0	12.5
22	7.5	7.0	7.0	8.0	6.0	7.5	12.5	9.5	11.5	15.0	11.0	13.0
23	7.0	6.5	6.5	8.0	7.5	7.5	13.5	10.5	12.0	13.0	11.0	12.0
24	7.0	5.5	6.5	8.5	6.5	7.5	12.5	9.5	11.5	11.5	11.0	11.0
25	---	4.5	---	8.5	6.0	7.5	12.5	9.0	11.0	11.0	10.5	10.5
26	6.5	4.5	5.5	8.5	7.0	8.0	14.5	10.0	12.0	11.0	10.5	10.5
27	7.0	5.5	6.5	8.0	6.0	7.0	15.5	11.5	13.5	12.0	11.0	11.5
28	7.5	6.0	7.0	8.5	5.5	7.5	14.5	13.0	13.5	14.0	10.5	12.0
29	---	---	---	9.0	6.0	7.5	14.5	11.0	13.0	15.5	11.5	13.0
30	---	---	---	9.5	7.0	8.5	13.0	12.0	12.5	13.0	12.0	12.5
31	---	---	---	10.0	7.5	9.0	---	---	---	12.5	11.0	12.0
MONTH	---	4.5	---	10.0	5.5	8.0	15.5	7.0	10.5	19.0	9.5	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	10.0	12.0	22.5	18.0	20.0	18.0	13.5	16.0	19.5	16.5	18.5
2	15.5	11.0	13.0	21.0	17.0	19.0	18.5	13.5	16.0	19.5	15.0	17.5
3	17.5	12.0	14.5	18.5	16.0	17.0	20.0	14.0	17.0	18.0	14.5	16.5
4	18.5	14.0	16.0	17.5	15.5	16.5	20.5	15.0	18.0	17.5	13.5	15.5
5	15.5	13.5	14.5	17.5	14.5	16.0	20.5	15.5	18.0	18.0	13.5	16.0
6	17.5	13.0	15.0	18.5	14.5	16.5	20.0	15.0	17.5	17.5	14.0	16.0
7	18.0	13.5	15.5	19.0	14.0	17.0	20.5	14.5	17.5	17.5	14.5	16.0
8	19.0	14.5	16.5	18.0	15.5	17.0	21.5	15.5	18.5	18.0	14.0	16.5
9	18.5	14.5	16.5	17.5	14.0	16.0	21.5	16.5	19.0	17.5	14.0	16.0
10	18.0	13.5	15.5	19.5	15.5	17.0	18.5	16.5	17.0	16.5	14.5	15.0
11	18.0	13.0	15.5	21.0	15.0	18.0	18.5	14.5	16.5	15.0	13.5	14.0
12	19.0	14.0	16.5	22.5	16.0	19.5	19.5	14.5	17.0	14.0	13.0	13.5
13	20.5	14.5	17.5	23.5	17.5	20.5	17.5	15.5	16.5	14.5	13.0	13.5
14	19.5	15.5	17.0	23.5	18.0	20.5	17.5	15.0	16.0	14.0	12.0	13.0
15	16.5	13.5	14.5	22.5	17.0	20.0	17.0	14.5	15.5	14.0	12.0	13.0
16	14.0	12.5	13.5	18.5	15.5	16.5	17.5	13.5	15.5	14.0	11.0	12.5
17	16.5	12.0	14.0	15.5	14.0	14.5	17.5	13.0	15.5	13.0	10.0	12.0
18	17.5	12.0	15.0	14.0	13.0	13.0	18.0	13.0	16.0	13.5	10.0	12.5
19	18.5	13.0	16.0	15.5	12.5	14.0	19.0	13.5	16.5	14.0	10.5	12.5
20	16.0	14.0	15.0	17.0	13.5	15.0	18.5	14.0	16.5	14.0	11.0	13.0
21	15.0	13.5	14.5	16.5	14.0	15.0	17.5	13.0	15.5	15.0	11.5	13.5
22	17.0	12.5	14.5	15.0	14.0	14.5	16.0	12.5	15.0	16.0	12.0	14.5
23	18.0	13.0	15.5	16.0	13.5	14.5	18.5	14.0	16.0	16.0	13.0	15.0
24	19.0	13.5	16.5	15.5	14.0	14.5	19.0	14.0	17.0	15.0	13.0	13.5
25	21.0	14.5	18.0	16.0	14.0	15.0	19.5	14.5	17.0	14.5	13.0	13.5
26	22.0	16.0	19.0	16.5	14.0	15.0	19.5	14.5	17.0	14.5	13.0	14.0
27	22.5	17.0	20.0	16.5	14.0	15.0	19.5	15.0	17.5	14.0	10.5	12.5
28	22.5	17.0	20.0	18.5	14.5	16.0	19.5	15.0	17.5	13.0	10.0	12.0
29	23.0	17.0	20.0	17.0	15.0	16.0	19.0	14.5	17.0	14.0	10.5	12.5
30	23.5	18.0	20.5	17.0	14.5	15.5	20.0	15.0	18.0	14.5	11.0	13.0
31	---	---	---	18.0	14.0	16.0	21.5	17.0	19.5	---	---	---
MONTH	23.5	10.0	16.0	23.5	12.5	16.5	21.5	12.5	17.0	19.5	10.0	14.0

14153000 COTTAGE GROVE LAKE NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°43'00", long 123°02'55", in NE 1/4 sec.28, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, in east abutment of dam on Coast Fork Willamette River 5.8 mi south of Cottage Grove, and at mile 29.7.

DRAINAGE AREA.--104 mi^2.

PERIOD OF RECORD.--October 1942 to current year. Prior to October 1971. published as Cottage Grove Reservoir near Cottage Grove.

REVISED RECORDS.--WSP 1218: 1950.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Elevations for Jan. 21 to Feb. 3 and Feb. 13 to Mar. 24 furnished by Corps of Engineers. Lake is formed by earthfill dam with concrete spillway completed by Corps of Engineers in 1942; storage began Oct. 31, 1942. Capacity, 32,930 acre-ft between elevation 719.0 ft, outlet conduit, and 791.0 ft, crest of spillway. Dead storage negligible. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 36,750 acre-ft Dec. 24, 1964, elevation, 794.23 ft; minimum contents since first filling, no contents Sept. 26 to Oct. 19, 1966, and Nov. 14, 15, Nov. 20 to Dec. 8, 1969.

EXTREMES FOR CURRENT YEAR.-- Maximum contents, 20,040 acre-ft May 13, elevation, 778.45 ft; minimum contents, 986 acre-ft Dec. 20-23, elevation, 740.04 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

710.9	0	755	4,860	780	21,460
730	151	760	7,150	785	26,370
740	926	765	9,970	790	31,780
745	1,840	770	13,260	793	35,270
750	3,140	775	17,070		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	772.39	751.26	747.74	753.58	757.57	766.13	776.26	778.34	778.12	776.48	775.33	771.81
2	771.72	750.96	745.44	752.35	762.51	766.30	776.40	778.35	778.12	776.39	775.24	771.68
3	771.09	750.47	743.79	750.74	759.35	766.39	776.53	778.37	778.11	776.31	775.14	771.54
4	770.45	750.23	741.99	750.74	754.91	766.49	776.64	778.37	778.09	776.23	775.04	771.41
5	769.79	750.35	740.12	750.74	754.67	766.69	776.74	778.35	778.06	776.15	774.93	771.28
6	769.10	750.44	740.12	750.74	755.56	766.96	776.83	778.32	778.03	776.06	774.83	771.15
7	768.40	750.72	740.11	750.74	756.43	767.18	776.93	778.28	778.00	775.98	774.72	771.02
8	767.68	750.94	740.10	750.08	757.04	767.40	777.04	778.23	777.96	775.90	774.62	770.89
9	766.95	751.09	740.10	750.19	757.47	767.61	777.12	778.16	777.92	775.80	774.51	770.76
10	766.21	750.74	740.09	750.10	757.76	767.78	777.25	778.09	777.86	775.71	774.39	770.63
11	765.45	749.99	740.09	749.87	758.34	767.98	777.46	778.04	777.81	775.61	774.29	770.52
12	764.67	749.89	740.08	750.11	759.05	768.38	777.66	778.44	777.76	775.50	774.18	770.40
13	763.88	749.99	740.08	750.85	759.91	768.93	777.80	778.20	777.70	775.38	774.07	770.29
14	763.08	750.13	740.07	750.64	760.84	769.86	777.90	778.20	777.64	775.25	773.98	770.17
15	762.25	750.20	740.06	749.81	761.29	770.82	777.97	778.19	777.59	775.12	773.87	770.05
16	761.43	750.23	740.06	749.89	761.57	771.47	778.03	778.18	777.54	775.00	773.76	769.92
17	760.54	750.23	740.06	750.40	762.00	772.11	778.10	778.16	777.49	774.91	773.65	769.80
18	759.62	750.10	740.05	750.75	762.64	772.67	778.19	778.14	777.43	775.31	773.53	769.67
19	758.65	749.73	740.05	750.95	763.10	773.01	778.26	778.12	777.36	775.74	773.42	769.54
20	757.64	750.28	740.04	751.23	763.42	773.49	778.30	778.10	777.29	775.83	773.29	769.41
21	756.56	750.41	740.04	751.53	763.83	773.83	778.33	778.07	777.25	775.85	773.17	769.28
22	755.45	750.45	740.04	751.79	764.19	773.97	778.36	778.05	777.20	775.89	773.05	769.15
23	754.31	749.39	741.55	752.03	764.56	774.32	778.37	778.02	777.13	775.90	772.94	769.01
24	753.39	750.35	743.80	753.76	764.83	774.63	778.39	778.01	777.06	775.88	772.82	768.88
25	752.59	750.44	745.55	756.94	765.15	774.84	778.39	778.05	776.99	775.85	772.69	768.76
26	751.82	750.02	747.35	756.73	765.49	774.96	778.39	778.06	776.91	775.80	772.57	768.63
27	751.45	757.15	748.70	755.44	765.76	775.18	778.37	778.06	776.82	775.74	772.45	768.50
28	751.09	764.17	749.67	755.22	765.96	775.48	778.35	778.05	776.74	775.67	772.32	768.37
29	750.84	761.19	750.61	753.38	---	775.73	778.32	778.02	776.65	775.59	772.20	768.24
30	750.94	758.82	750.72	752.37	---	775.93	778.33	778.03	776.57	775.51	772.05	768.11
31	751.20	---	750.23	752.50	---	776.11	---	778.09	---	775.42	771.94	---
MAX	772.39	764.17	750.72	756.94	765.96	776.11	778.39	778.44	778.12	776.48	775.33	771.81
MIN	750.84	749.39	740.04	749.81	754.67	766.13	776.26	778.01	776.57	774.91	771.94	768.11
(†)	3510	6560	3210	3940	10570	18000	19940	19720	18390	17420	14670	11960
(‡)	-12050	+3050	-3350	+730	+6630	+7430	+1940	-220	-1330	-970	-2750	-2710

CAL YR 1986 MAX 790.16 MIN 740.04 AC-FT‡ +110
WTR YR 1987 MAX 778.44 MIN 740.04 AC-FT‡ -3600

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14153500 COAST FORK WILLAMETTE RIVER BELOW COTTAGE GROVE DAM, OR

LOCATION.--Lat 43°43'15", long 123°02'55", in NE 1/4 sec.28, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, on right bank at bridge 0.3 mi downstream from Cottage Grove Dam, 5.5 mi south of Cottage Grove, and at mile 29.4.

DRAINAGE AREA.--104 mi^2.

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1944, published as "near Cottage Grove."

REVISED RECORDS.--WSP 1448: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Jan. 1 to Oct. 12, 1939, nonrecording gage and Oct. 13, 1939, to Sept. 30, 1944, water-stage recorder at several sites and datums 0.8 mi downstream.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1942 by Cottage Grove Lake (station 14153000). Small diversions for irrigation upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 273 ft^3/s, 35.65 in/yr, 197,800 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,910 ft^3/s Dec. 24, 1964, gage height, 11.83 ft; no flow July 5-7, 1945, and for part of Aug. 24, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,650 ft^3/s Nov. 29, gage height, 8.24 ft; minimum discharge, 40 ft^3/s June 16-19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	341	158	1210	402	582	138	89	84	44	45	58	57
2	302	158	581	1210	928	138	89	84	44	45	58	57
3	272	158	429	1160	1830	138	89	84	44	45	58	57
4	270	103	375	695	1660	138	89	84	44	45	58	56
5	269	47	382	428	586	107	89	84	44	44	58	55
6	266	49	365	345	264	86	89	84	44	44	58	55
7	265	81	287	343	184	86	89	84	44	44	58	55
8	263	109	139	294	185	86	89	84	44	44	58	55
9	261	110	110	222	188	86	89	84	44	49	58	55
10	259	194	117	222	188	86	89	84	44	59	58	55
11	257	221	115	220	127	86	90	61	44	59	58	55
12	255	111	132	221	79	86	90	45	44	59	58	55
13	253	75	141	222	199	86	89	45	44	59	58	55
14	251	75	183	331	355	88	89	45	44	59	58	55
15	249	75	158	379	356	89	89	45	44	59	58	55
16	247	75	136	230	357	89	89	45	42	59	58	55
17	260	75	114	149	282	89	91	45	40	58	58	55
18	265	113	83	150	200	181	91	45	40	60	57	55
19	261	209	83	151	202	272	91	45	54	59	57	55
20	257	288	86	128	203	171	91	45	51	59	57	55
21	256	731	85	110	203	171	91	45	45	59	57	55
22	251	1150	83	110	205	207	91	45	45	59	57	55
23	247	726	87	111	206	208	86	45	45	59	57	55
24	198	329	84	113	206	208	84	45	45	59	57	55
25	171	383	82	404	169	210	84	45	45	59	57	55
26	170	491	84	1150	136	210	84	45	45	59	57	54
27	135	531	87	1210	136	139	84	44	45	59	57	54
28	110	801	88	1050	138	88	84	44	45	59	57	54
29	110	1890	135	1020	---	88	84	44	45	59	57	54
30	138	2410	264	713	---	88	84	44	45	59	57	54
31	158	---	305	551	---	89	---	44	---	58	57	---
TOTAL	7267	11926	6610	14044	10354	4032	2646	1796	1337	1702	1784	1652
MEAN	234	398	213	453	370	130	88.2	57.9	44.6	54.9	57.5	55.1
MAX	341	2410	1210	1210	1830	272	91	84	54	60	58	57
MIN	110	47	82	110	79	86	84	44	40	44	57	54
AC-FT	14410	23660	13110	27860	20540	8000	5250	3560	2650	3380	3540	3280
MEAN†	38.4	449	159	465	489	251	121	54.3	22.2	39.2	12.8	9.58
CFSM†	0.37	4.32	1.53	4.47	4.70	2.41	1.16	0.52	0.21	0.38	0.12	0.09
IN.†	0.43	4.82	1.76	5.15	4.90	2.78	1.30	0.60	0.24	0.43	0.14	0.10
AC-FT†	2360	26710	9760	28590	27170	15430	7190	3340	1320	2410	790	570

CAL YR 1986 TOTAL 92035 MEAN 252 MAX 2960 MIN 47 AC-FT 182600 MEAN† 252 CFSM† 2.42 IN.† 32.94 AC-FT† 182700
WTR YR 1987 TOTAL 65150 MEAN 178 MAX 2410 MIN 40 AC-FT 129200 MEAN† 173 CFSM† 1.66 IN.† 22.64 AC-FT† 125600

† Adjusted for change in contents in Cottage Grove Lake.

14154500 ROW RIVER ABOVE PITCHER CREEK, NEAR DORENA, OR

LOCATION.--Lat 43°44'10", long 122°52'20", in NE 1/4 sec.24, T.21 S., R.2 W., Lane County, Hydrologic Unit 17090002, on right bank 0.5 mi upstream from Pitcher Creek, 1.2 mi northwest of Dorena, and at mile 13.2.

DRAINAGE AREA.--211 mi^2.

PERIOD OF RECORD.--September 1935 to current year. Prior to October 1949, published as "at Star."

GAGE.--Water-stage recorder. Datum of gage is 856.16 ft above National Geodetic Vertical Datum of 1929. Sept. 16, 1935, to Oct. 17, 1938, nonrecording gage at site 450 ft upstream at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records good except those for June through September, which are fair. Slight regulation caused by upstream logponds. No diversion upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years, 601 ft^3/s, 38.68 in/yr, 435,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 ft^3/s Dec. 22, 1964, gage height, 18.19 ft, from rating curve extended above 12,000 ft^3/s, on basis of slope-area measurement of peak flow; minimum discharge, 10 ft^3/s Sept. 24, 25, 1951, Oct. 7, 8, 1958.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0830	*8,630	*9.81	No other peak greater than base discharge.			

Minimum discharge, 16 ft^3/s Sept. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	567	1050	1580	2610	357	388	200	156	28	41	19
2	208	331	771	2260	4690	350	388	222	114	28	39	19
3	160	233	605	1700	2330	425	369	205	91	29	37	19
4	128	179	497	1450	1460	509	344	190	75	28	35	19
5	109	148	431	964	1060	505	308	177	67	30	33	19
6	96	136	377	711	844	510	288	169	63	29	32	18
7	85	673	330	553	716	421	267	157	58	28	32	17
8	76	862	296	455	609	365	290	144	54	28	30	17
9	70	1110	269	387	533	348	276	139	51	28	29	18
10	67	1140	245	343	471	321	274	121	48	28	28	18
11	64	632	229	325	492	317	420	109	46	29	28	19
12	60	477	256	351	436	607	479	108	43	27	28	19
13	57	398	265	410	1030	999	427	123	42	26	27	20
14	54	353	356	431	1300	1180	367	104	40	25	28	21
15	53	330	313	430	964	1110	324	98	40	25	26	22
16	52	274	278	373	932	799	299	95	42	25	25	22
17	55	329	251	336	862	786	299	88	42	30	24	21
18	73	400	234	308	914	1130	329	85	38	453	23	20
19	67	678	242	282	818	1050	313	80	37	551	22	19
20	59	1100	229	260	683	867	307	76	37	178	22	19
21	54	2900	210	248	622	720	302	74	48	148	21	19
22	52	3980	213	254	576	595	296	71	54	490	21	18
23	50	2320	366	297	609	844	289	69	44	286	22	17
24	52	1560	401	754	585	1010	259	70	38	157	23	17
25	51	1320	389	2910	522	856	231	113	36	108	22	17
26	55	1250	447	3620	459	728	210	104	34	84	21	18
27	194	5010	417	2250	408	602	210	91	33	69	20	19
28	185	6960	357	2210	376	509	219	84	32	60	20	18
29	138	2950	460	1450	---	442	193	73	31	52	20	18
30	567	1570	630	1040	---	394	182	66	30	48	20	17
31	767	---	519	1160	---	378	---	104	---	45	20	---
TOTAL	4052	40170	11933	30102	27911	20034	9147	3609	1564	3200	819	563
MEAN	131	1339	385	971	997	646	305	116	52.1	103	26.4	18.8
MAX	767	6960	1050	3620	4690	1180	479	222	156	551	41	22
MIN	50	136	210	248	376	317	182	66	30	25	20	17
AC-FT	8040	79680	23670	59710	55360	39740	18140	7160	3100	6350	1620	1120
CFSM	.62	6.35	1.82	4.60	4.72	3.06	1.45	.55	.25	.49	.13	.09
IN.	.71	7.08	2.10	5.31	4.92	3.53	1.61	.64	.28	.56	.14	.10

CAL YR 1986 TOTAL 221994 MEAN 608 MAX 11500 MIN 23 AC-FT 440300 CFSM 2.88 IN. 39.14
WTR YR 1987 TOTAL 153104 MEAN 419 MAX 6960 MIN 17 AC-FT 303700 CFSM 1.99 IN. 26.99

14155000 DORENA LAKE NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°47'10", long 122°57'15", in SE 1/4 sec.32, T.20 S., R.2 W., Lane County, Hydrologic Unit 17090002, on left end of Dorena Dam on Row River, 5.0 mi east of Cottage Grove, and at mile 7.61.

DRAINAGE AREA.--265 mi^2.

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1971, published as Dorena Reservoir near Cottage Grove.

REVISED RECORDS.--WRD OR-78-1: 1969.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete outlet and spillway, completed in 1949 by Corps of Engineers; controlled storage began Oct. 11, 1949. Capacity, 77,580 acre-ft between elevations 739.0 ft, sill of outlet gates, and 835.0 ft, crest of spillway. Dead storage, 18 acre-ft below elevation 739.0 ft. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 95,550 acre-ft Dec. 23, 1964, elevation, 844.03 ft; minimum contents observed since first filling, 159 acre-ft Dec. 14, 1970, elevation, 743.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 60,820 acre-ft July 29, elevation, 825.47 ft; minimum contents, 6,790 acre-ft Jan. 8, elevation, 769.89 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

760	2,810	785	15,850	810	39,380	835	77,600
765	4,560	790	19,580	815	45,620	840	87,320
770	6,840	795	23,780	820	52,480		
775	9,540	800	28,490	825	60,060		
780	12,530	805	33,700	830	68,470		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	806.67	777.03	789.52	775.16	782.35	795.26	813.11	821.32	822.76	821.99	825.44	823.08
2	805.45	776.76	781.26	775.65	791.69	795.39	813.55	821.46	822.87	821.91	825.41	822.98
3	804.34	775.96	773.45	773.32	790.70	795.68	813.95	821.58	822.95	821.83	825.38	822.82
4	803.25	774.73	770.74	771.84	785.81	796.15	814.30	821.66	822.99	821.76	825.33	822.63
5	802.23	773.31	770.99	770.78	781.85	796.86	814.60	821.72	823.00	821.67	825.30	822.45
6	801.04	771.77	770.86	770.72	780.98	797.75	814.85	821.77	823.01	821.60	825.26	822.26
7	800.17	773.31	770.41	770.18	781.49	798.39	815.08	821.80	823.02	821.51	825.20	822.08
8	798.28	775.13	770.05	770.06	781.63	798.93	815.36	821.80	823.02	821.43	825.15	821.89
9	796.97	775.83	770.30	770.13	781.50	799.41	815.59	821.79	823.01	821.35	825.11	821.70
10	795.66	774.38	770.68	770.15	781.12	799.82	815.85	821.76	822.98	821.27	825.08	821.55
11	794.38	771.17	770.96	770.01	781.69	800.24	816.38	821.74	822.95	821.20	825.07	821.38
12	793.07	770.49	771.26	770.16	782.74	801.27	816.97	821.86	822.92	821.11	825.05	821.19
13	791.75	770.33	771.29	770.74	785.12	802.68	817.45	821.96	822.88	821.03	825.05	820.96
14	790.42	770.42	771.33	771.07	787.68	804.14	817.84	822.01	822.84	820.94	825.04	820.68
15	789.08	770.60	770.92	770.53	789.24	805.44	818.16	822.06	822.79	820.86	824.98	820.24
16	787.74	770.50	770.69	770.55	789.92	806.08	818.41	822.10	822.75	820.80	824.63	819.46
17	786.46	770.65	770.56	771.03	790.01	806.71	818.73	822.13	822.71	820.74	824.45	818.83
18	785.15	771.22	770.34	771.30	790.32	807.68	819.07	822.15	822.66	821.81	824.34	818.32
19	783.76	771.78	770.46	771.41	790.37	808.00	819.37	822.15	822.62	823.02	824.24	817.87
20	782.30	773.41	770.59	771.64	790.54	807.76	819.64	822.15	822.58	823.40	824.16	817.47
21	780.77	778.64	770.59	772.01	791.06	807.63	819.91	822.16	822.57	823.66	824.07	816.86
22	779.23	783.01	770.60	772.39	791.47	807.58	820.16	822.15	822.57	824.46	823.98	816.26
23	777.64	780.27	771.37	772.98	792.30	808.35	820.39	822.15	822.54	824.93	823.90	815.62
24	776.32	774.45	771.86	775.47	793.28	809.66	820.56	822.15	822.50	825.16	823.82	815.01
25	775.17	771.73	771.97	782.49	794.01	810.61	820.69	822.26	822.44	825.31	823.72	814.37
26	774.04	772.18	772.00	785.72	794.51	811.26	820.80	822.32	822.38	825.39	823.64	813.65
27	773.73	786.20	771.54	782.77	794.85	811.66	820.90	822.37	822.31	825.43	823.55	812.80
28	773.64	801.36	770.74	781.44	795.08	811.81	821.01	822.41	822.23	825.46	823.46	811.91
29	773.37	802.34	771.02	779.45	---	811.83	821.08	822.44	822.16	825.47	823.37	810.99
30	774.63	796.98	771.42	777.50	---	812.22	821.17	822.47	822.09	825.46	823.27	810.07
31	776.34	---	771.10	777.17	---	812.66	---	822.58	---	825.46	823.18	---
MAX	806.67	802.34	789.52	785.72	795.08	812.66	821.17	822.58	823.02	825.47	825.44	823.08
MIN	773.37	770.33	770.05	770.01	780.98	795.26	813.11	821.32	822.09	820.74	823.18	810.07
(†)	10320	25580	7410	10800	23850	42620	54180	56290	55550	60800	57210	39460
(‡)	-26650	+15260	-18170	+3390	+13050	+18770	+11560	+2110	-740	+5250	-3590	-17750

CAL YR 1986 MAX 836.09 MIN 770.05 AC-FT‡ +440
WTR YR 1987 MAX 825.47 MIN 770.01 AC-FT‡ +2490

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14155500 ROW RIVER NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°47'35", long 122°59'25", in NE 1/4 sec.36, T.20 S., R.3 W., Lane County, Hydrologic Unit 17090002, on right bank 1.7 mi upstream from Mosby Creek, 2.1 mi downstream from Dorena Dam, 3.5 mi east of Cottage Grove, and at mile 5.5.

DRAINAGE AREA.--270 mi^2.

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1947, published as "near Dorena."

GAGE.--Water-stage recorder. Datum of gage is 685.24 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Jan. 5 to Oct. 12, 1939, nonrecording gage at site 180 ft upstream at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 8-16. Records good except for estimated daily discharges, which are fair. Flow regulated since October 1949 by Dorena Lake (station 14155000). No diversion upstream from station.

AVERAGE DISCHARGE.--48 years, 754 ft^3/s, 37.92 in/yr, 546,300 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft^3/s Dec. 28, 1945, gage height, 18.20 ft; minimum discharge, 0.20 ft^3/s Sept. 25 to Oct. 7, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,980 ft^3/s Nov. 29, gage height, 8.18 ft; minimum discharge, 75 ft^3/s May 13, June 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1070	448	4640	773	1560	384	181	167	89	91	94	94
2	924	448	4230	2510	2020	384	181	167	89	91	94	122
3	788	480	3240	2680	3230	388	181	167	89	91	94	150
4	742	540	1630	2070	3770	389	181	167	89	91	94	150
5	736	539	493	1460	2790	279	181	167	89	91	94	150
6	729	527	510	941	1380	184	181	167	89	91	94	150
7	722	423	510	834	724	184	181	167	89	91	94	150
8	716	515	450	634	715	184	181	167	89	91	94	150
9	709	1050	400	499	715	184	181	167	89	91	94	150
10	689	1710	350	448	715	184	182	167	89	91	94	150
11	655	1570	340	444	448	184	184	133	89	91	94	150
12	649	723	340	442	188	181	184	84	89	91	94	187
13	641	510	340	442	314	362	184	82	89	91	94	229
14	624	411	340	520	500	599	178	85	89	91	94	320
15	605	347	340	700	507	603	174	87	90	91	94	384
16	599	343	340	508	774	603	174	87	90	91	94	384
17	592	343	340	338	972	603	174	87	89	92	94	384
18	597	343	338	338	978	783	176	87	89	96	94	384
19	597	605	273	338	978	1090	177	87	89	97	94	284
20	589	879	253	281	783	1200	177	87	89	96	94	353
21	578	1810	260	230	614	973	177	87	89	94	94	437
22	566	2740	263	230	615	770	177	87	89	94	94	437
23	553	3640	264	230	515	627	177	87	89	94	94	437
24	449	3700	381	236	384	483	177	87	86	94	94	444
25	381	2620	459	913	384	482	177	87	91	94	94	448
26	375	1440	548	2980	384	487	177	87	91	94	94	539
27	296	1540	625	3800	384	487	177	87	91	94	94	603
28	234	1770	625	3140	384	487	173	87	91	94	94	603
29	234	2620	498	2450	---	487	167	87	91	94	94	601
30	288	4680	638	1920	---	324	167	88	91	94	94	608
31	398	---	688	1520	---	181	---	89	---	94	94	---
TOTAL	18325	39314	24946	34849	27725	14740	5339	3536	2681	2871	2914	9632
MEAN	591	1310	805	1124	990	475	178	114	89.4	92.6	94.0	321
MAX	1070	4680	4640	3800	3770	1200	184	167	91	97	94	608
MIN	234	343	253	230	188	181	167	82	86	91	94	94
AC-FT	36350	77980	49480	69120	54990	29240	10590	7010	5320	5690	5780	19110
MEAN†	158	1567	510	1179	1225	781	372	148	77.0	178	35.6	22.9
CFSM†	0.59	5.80	1.89	4.37	4.54	2.89	1.38	0.55	0.29	0.66	0.13	0.08
IN.†	0.67	6.47	2.18	5.03	4.72	3.33	1.54	0.63	0.32	0.76	0.15	0.09
AC-FT†	9700	93240	31330	72510	68040	48010	22150	9120	4580	10940	2190	1360

CAL YR 1986 TOTAL 269819 MEAN 739 MAX 5200 MIN 94 AC-FT 535200 MEAN† 740 CFSM† 2.74 IN.† 37.19 AC-FT† 535600
WTR YR 1987 TOTAL 186872 MEAN 512 MAX 4680 MIN 82 AC-FT 370700 MEAN† 515 CFSM† 1.91 IN.† 25.91 AC-FT† 373200

† Adjusted for change in contents in Dorena Lake.

14157500 COAST FORK WILLAMETTE RIVER NEAR GOSHEN, OR

LOCATION.--Lat 43°58'50", long 122°57'55", in NW 1/4 sec.29, T.18 S., R.2 W., Lane County, Hydrologic Unit 17090002, on right bank at downstream side of bridge on State Highway 58, 2.5 mi southeast of Goshen, and at mile 6.4.

DRAINAGE AREA.--642 mi^2.

PERIOD OF RECORD.--August 1905 to February 1912, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1248: 1905-12. WSP 1935: 1956.

GAGE.--Water-stage recorder. Datum of gage is 473.80 ft above National Geodetic Vertical Datum of 1929. Aug. 23, 1905, to Feb. 7, 1912, nonrecording gage at site 600 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records excellent except those for period of backwater May 18 to July 19, which are fair. Flow regulated since 1942 by Cottage Grove Lake (station 14153000) and since 1949 by Dorena Lake (station 14155000). Several small diversions for logponds and irrigation upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years (water years 1906-11, 1951-87), 1,640 ft^3/s, 1,188,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,500 ft^3/s Nov. 22, 1909, gage height, 19.5 ft, site and datum then in use, from rating curve extended above 15,000 ft^3/s; minimum discharge, 36 ft^3/s Sept. 29, 30, Oct. 11, 12, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,350 ft^3/s Nov. 28, gage height, 10.26 ft; minimum discharge, 99 ft^3/s July 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1680	891	7120	2740	5240	884	532	380	185	101	167	135
2	1460	817	5570	5640	8150	870	507	402	171	102	166	134
3	1230	768	4320	6400	7020	850	503	397	163	104	164	181
4	1130	811	2730	4400	7270	848	497	386	154	107	155	183
5	1110	675	1370	3360	5050	774	479	373	149	112	152	189
6	1090	650	1310	2650	2900	572	481	366	148	116	152	191
7	1080	651	1190	2100	1710	541	483	361	146	112	151	191
8	1060	854	969	1790	1560	514	499	354	142	113	150	190
9	1040	1280	703	1360	1470	518	481	347	139	116	145	189
10	1030	1990	552	1190	1390	509	474	339	135	127	148	192
11	981	2270	545	1130	1240	531	575	332	132	131	146	194
12	966	1230	660	1220	714	775	617	228	132	135	148	198
13	951	758	814	1510	1210	1150	559	222	131	133	150	265
14	936	712	1190	1490	2500	1750	516	207	123	135	151	303
15	913	589	1100	1680	2120	1810	473	205	124	136	153	424
16	902	555	947	1470	2160	1470	449	199	122	145	152	429
17	910	555	789	949	2260	1340	447	192	120	167	149	427
18	931	568	704	899	2190	1700	470	184	114	268	149	426
19	931	937	688	864	2010	2270	459	176	108	629	148	389
20	913	1560	614	801	1790	2220	441	167	118	340	149	315
21	897	3430	597	639	1540	1880	430	163	118	276	148	470
22	883	6050	619	617	1520	1550	418	158	127	273	151	467
23	868	5760	822	666	1490	1750	408	156	123	297	148	466
24	786	4000	971	1130	1220	1520	392	161	112	248	146	465
25	610	3980	1060	2890	1120	1390	381	174	107	223	143	476
26	600	2890	1260	6370	1010	1280	376	185	106	205	140	517
27	580	5370	1290	7290	956	1170	371	174	105	195	139	643
28	439	8710	1190	6790	915	1010	365	169	106	186	137	641
29	418	6430	1210	5210	---	968	348	164	107	179	139	635
30	554	8210	1650	4180	---	860	353	161	103	171	140	632
31	817	---	1700	3510	---	564	---	170	---	169	140	---
TOTAL	28696	74851	46254	82935	69725	35838	13784	7652	3870	5751	4616	10557
MEAN	926	2495	1492	2675	2490	1156	459	247	129	186	149	352
MAX	1680	8710	7120	7290	8150	2270	617	402	185	629	167	643
MIN	418	555	545	617	714	509	348	156	103	101	137	134
AC-FT	56920	148500	91740	164500	138300	71080	27340	15180	7680	11410	9160	20940

CAL YR 1986 TOTAL 564082 MEAN 1545 MAX 14000 MIN 141 AC-FT 1119000
WTR YR 1987 TOTAL 384529 MEAN 1054 MAX 8710 MIN 101 AC-FT 762700

14158500 MCKENZIE RIVER AT OUTLET OF CLEAR LAKE, OR

LOCATION.--[illegible] 4°21'40", long 121°59'40", in SE 1/4 sec.8, T.14 S., R.7 E., Linn County, Hydrologic Unit 170900[illegible], Willamette National Forest, on west bank of Clear Lake in narrow channel, 150 ft upstream from outlet and at mile 89.6.

DRAINAGE AREA.--92.4 mi^2, hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--June 1912 to September 1915, October 1947 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1949. WSP 1318: 1915(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,015.32 ft above National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). June 20, 1912, to July 31, 1915, nonrecording gage at site 1.0 mi north at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by natural storage in lake. At high stages an undetermined flow enters numerous sinkholes in lava rock along south edge of lake upstream from station.

AVERAGE DISCHARGE.--43 years, 467 ft^3/s, 68.63 in/yr, 338,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft^3/s Dec. 23, 1964, gage height, 8.15 ft; minimum discharge, 137 ft^3/s Sept. 23, 1977, Nov. 4, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,030 ft^3/s Nov. 28, gage height, 4.14 ft; minimum discharge, 165 ft^3/s Sept. 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	206	745	353	418	399	418	471	324	255	226	187
2	251	224	717	346	426	396	418	467	319	253	224	186
3	253	236	689	349	437	396	425	458	316	251	222	185
4	251	239	660	349	475	395	433	447	316	250	221	185
5	248	236	635	345	543	395	438	441	316	248	220	183
6	244	234	601	343	539	401	443	437	315	246	218	183
7	240	235	566	341	541	403	445	440	313	244	216	183
8	235	233	530	339	545	412	458	445	312	242	214	182
9	232	234	498	335	547	430	481	445	309	240	213	181
10	227	233	478	332	542	445	495	438	306	239	211	180
11	223	233	459	327	540	460	519	426	303	236	210	180
12	219	235	437	325	538	510	524	418	300	235	208	179
13	215	236	427	322	574	606	517	411	297	233	207	178
14	212	244	423	315	607	651	513	404	294	232	206	177
15	208	244	411	303	594	631	517	397	292	231	205	176
16	205	253	402	296	573	601	526	392	288	230	204	176
17	203	270	395	290	557	604	535	388	285	230	202	175
18	201	276	391	283	542	620	536	384	281	237	201	174
19	197	298	385	277	520	601	518	380	279	232	200	173
20	195	318	379	271	503	580	498	376	277	230	199	172
21	193	356	372	267	491	563	486	372	276	231	197	171
22	191	391	370	263	483	544	483	367	272	233	196	170
23	189	427	371	259	473	532	488	362	270	234	195	170
24	188	567	362	265	454	512	492	360	268	233	195	169
25	186	642	354	271	434	494	485	356	266	233	194	169
26	187	655	354	278	421	483	474	348	265	232	192	168
27	189	832	347	287	411	472	467	342	264	231	192	167
28	185	996	342	305	404	458	474	338	262	231	191	166
29	186	874	345	319	---	442	481	332	259	230	190	166
30	196	786	344	335	---	430	474	330	258	229	189	165
31	199	---	341	367	---	423	---	332	---	227	188	---
TOTAL	6595	11443	14130	9657	14132	15289	14461	12304	8702	7344	6346	5276
MEAN	213	381	456	312	505	493	482	397	290	237	205	176
MAX	253	996	745	367	607	651	536	471	324	255	226	187
MIN	185	206	341	259	404	395	418	330	258	227	188	165
AC-FT	13080	22700	28030	19150	28030	30330	28680	24400	17260	14570	12590	10460
CFSM	2.30	4.13	4.93	3.37	5.46	5.34	5.22	4.30	3.14	2.56	2.22	1.90
IN.	2.66	4.61	5.69	3.89	5.69	6.16	5.82	4.95	3.50	2.96	2.55	2.12

CAL YR 1986 TOTAL 155113 MEAN 425 MAX 1840 MIN 185 AC-FT 307700 CFSM 4.60 IN. 62.45
WTR YR 1987 TOTAL 125679 MEAN 344 MAX 996 MIN 165 AC-FT 249300 CFSM 3.73 IN. 50.60

14158790 SMITH RIVER ABOVE SMITH RIVER RESERVOIR, NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°20'05", long 122°02'45", in SW 1/4 SW 1/4 sec.24, T.14 S., R.6 E., Linn County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 200 ft upstream from Smith River Reservoir, 0.7 mi downstream from Browder Creek, 10 mi north of town of Belknap Springs, and at mile 4.4.

DRAINAGE AREA.--16.2 mi^2.

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WDR OR 80-2: 1978(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,610.00 ft above National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). Prior to Sept. 10, 1964, at datum 1.56 ft higher.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--27 years, 91.0 ft^3/s, 76.28 in/yr, 65,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,160 ft^3/s Dec. 22, 1964, gage height, 11.9 ft, from floodmark, from rating curve extended above 560 ft^3/s, on basis of slope-area measurement of peak flow; minimum discharge, 2.5 ft^3/s Sept. 15-18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0730	*789	*7.60				

Minimum discharge, 3.5 ft^3/s Sept. 1, 2, 5-10, 21-25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	83	148	87	434	38	81	92	55	9.0	6.8	3.6
2	24	58	120	78	325	44	101	87	43	8.5	6.6	3.6
3	20	43	102	97	256	80	111	94	36	8.1	6.3	3.8
4	17	35	90	95	193	118	107	86	33	8.0	6.1	3.7
5	15	33	83	79	154	152	100	85	30	8.0	5.9	3.7
6	13	42	74	65	141	175	100	88	28	7.7	5.6	3.6
7	12	46	65	54	140	140	102	89	26	7.5	5.6	3.5
8	11	47	58	46	139	121	145	88	24	7.2	5.3	3.5
9	9.9	68	51	41	137	119	128	76	23	7.2	5.1	3.5
10	9.1	72	46	38	133	120	139	64	21	7.1	5.0	3.6
11	8.4	59	43	38	150	125	143	54	20	6.8	4.9	3.7
12	7.9	58	44	39	143	218	123	63	19	6.6	4.9	3.7
13	7.5	62	60	37	235	297	112	60	18	6.4	5.0	3.8
14	7.2	98	76	35	210	268	109	49	17	6.4	5.2	4.2
15	7.1	83	68	32	176	206	112	43	16	6.1	4.9	4.6
16	6.9	92	60	31	148	156	121	38	16	6.0	4.7	3.9
17	7.2	179	55	30	129	152	123	34	15	6.7	4.5	3.7
18	8.0	196	50	28	113	140	109	31	14	23	4.5	3.9
19	7.0	273	46	26	98	117	93	28	13	15	4.3	3.7
20	6.6	366	42	24	88	102	86	26	12	11	4.1	3.7
21	6.1	354	39	24	80	92	88	24	16	13	4.1	3.7
22	6.0	298	51	24	72	83	98	22	14	23	4.2	3.5
23	5.9	374	78	25	65	80	106	21	12	15	4.1	3.5
24	5.7	401	67	38	57	74	106	26	12	13	4.1	3.5
25	6.1	281	60	109	51	71	97	23	11	11	3.9	3.8
26	11	327	71	216	45	69	92	22	11	9.9	4.1	4.4
27	17	647	65	242	42	63	102	21	9.9	9.4	4.0	3.9
28	12	479	58	214	39	58	113	20	9.5	8.7	3.9	3.9
29	18	285	71	154	---	55	99	19	9.2	8.1	3.9	3.7
30	97	199	74	125	---	55	94	22	9.4	7.7	3.8	3.7
31	131	---	67	204	---	62	---	49	---	7.2	3.7	---
TOTAL	550.6	5638	2082	2375	3993	3650	3240	1544	593.0	298.3	149.1	112.6
MEAN	17.8	188	67.2	76.6	143	118	108	49.8	19.8	9.62	4.81	3.75
MAX	131	647	148	242	434	297	145	94	55	23	6.8	4.6
MIN	5.7	33	39	24	39	38	81	19	9.2	6.0	3.7	3.5
AC-FT	1090	11180	4130	4710	7920	7240	6430	3060	1180	592	296	223
CFSM	1.10	11.6	4.15	4.73	8.80	7.27	6.67	3.07	1.22	.59	.30	.23
IN.	1.26	12.95	4.78	5.45	9.17	8.38	7.44	3.55	1.36	.68	.34	.26

CAL YR 1986 TOTAL 32694.4 MEAN 89.6 MAX 1200 MIN 3.0 AC-FT 64850 CFSM 5.53 IN. 75.08
WTR YR 1987 TOTAL 24225.6 MEAN 66.4 MAX 647 MIN 3.5 AC-FT 48050 CFSM 4.10 IN. 55.63

14158795 SMITH RIVER RESERVOIR NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°18'20", long 122°02'40", in SW 1/4 SW 1/4 sec.36, T.14 S., R.6 E., Linn County, Hydrologic Unit 17090004, Willamette National Forest, in intake tower near left end of Smith River Dam on Smith River, 800 ft upstream from Bunchgrass Creek, 8 mi north of town of Belknap Springs, and at mile 2.1.

DRAINAGE AREA.--18.2 mi^2

PERIOD OF RECORD.--March 1963 to current year.

REVISED RECORDS.--WDR OR-86-2: 1985.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1963 by Eugene Water and Electric Board; storage began Mar. 18, 1963. Total capacity is 15,000 acre-ft at elevation 2,605.0 ft, top of spillway gates, and usable capacity is 9,900 acre-ft between elevations 2,525.0 ft, minimum power pool, and 2,605.0 ft. Storage of 5,100 acre-ft, below elevation 2,525.0 ft, not normally available for release. Water used for power generation. Figures herein represent total contents.

COOPERATION.--Elevations and area-volume curves furnished by Eugene Water and Electric Board.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 15,200 acre-ft Dec. 22, 1964, elevation, 2,606.5 ft; minimum contents, 5,700 acre-ft Apr. 11, 14, 1964, elevation, 2,532.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,660 acre-ft June 15, elevation, 2,603.29 ft; minimum contents, 12,900 acre-ft Dec. 10, elevation, 2,592.47 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	2,600.15	14,130	--
Oct. 31	2,597.29	13,670	-460
Nov. 30	2,596.42	13,530	-140
Dec. 31	2,594.54	13,230	-300
CAL YR 1986	--	--	-270
Jan. 31	2,594.77	13,260	+30
Feb. 28	2,594.70	13,250	-10
Mar. 31	2,597.10	13,640	+390
Apr. 30	2,599.45	14,010	+370
May 31	2,600.90	14,250	+240
June 30	2,601.28	14,320	+70
July 31	2,601.03	14,280	-40
Aug. 31	2,601.24	14,310	+30
Sept.30	2,601.56	14,370	+60
WTR YR 1987	--	--	+240

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°16'05", long 122°02'55", in T.15 S., R.6 E., (unsurveyed), Linn County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 0.4 mi downstream from Trail Bridge Dam, 0.5 mi upstream from Anderson Creek, 5 mi north of town of Belknap Springs, and at mile 81.5.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,980.00 ft above National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). Prior to Oct. 11, 1963, at datum 5.60 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1963 by Smith River Reservoir (station 14158795). Diurnal fluctuations by powerplants and by Trail Bridge reregulating reservoir upstream. Water is diverted from McKenzie River in SW 1/4 sec.20, T.14 S., R.7 E., to Smith River Reservoir and returned to river upstream from station.

AVERAGE DISCHARGE.--28 years, 1,027 ft^3/s, 75.80 in/yr, 744,100 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft^3/s Dec. 22, 1964, gage height, 12.45 ft, from rating curve extended above 3,700 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 185 ft^3/s Feb. 3, 1963; minimum daily, 425 ft^3/s Nov. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,280 ft^3/s Nov. 27, gage height, 8.11 ft; minimum discharge, 611 ft^3/s Sept. 19, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	786	871	1540	1010	1530	985	995	1070	867	739	702	649
2	794	822	1480	1000	1430	997	1040	1040	840	736	689	646
3	785	819	1440	1020	1330	1040	1070	1060	812	730	689	655
4	778	819	1380	1020	1270	1020	1090	1030	830	715	701	657
5	774	815	1350	1020	1230	1080	1050	1020	821	715	716	656
6	762	806	[illegible]	952	1300	1120	1090	985	812	715	713	655
7	753	814	[illegible]	948	1240	1080	1060	1010	813	716	690	649
8	757	805	[illegible]	932	1230	1020	1130	1010	817	736	673	649
9	759	824	[illegible]	942	1240	1110	1070	1020	812	735	674	648
10	746	826	[illegible]	899	1180	1090	1120	966	797	717	691	649
11	726	795	[illegible]	881	1260	1130	1180	956	796	706	696	644
12	733	815	[illegible]	917	1190	1270	1140	1010	796	706	697	641
13	726	826	[illegible]	902	1350	1380	1100	989	792	707	684	641
14	738	870	1070	854	1340	1400	1130	945	784	707	679	641
15	720	822	1020	864	1300	1350	1140	907	792	707	683	642
16	709	848	1020	850	1290	1310	1130	900	794	707	680	641
17	722	1010	985	817	1260	1290	1140	917	775	699	684	642
18	736	1010	985	808	1250	1260	1150	904	771	757	681	641
19	710	1150	981	851	1180	1290	1100	873	764	740	682	621
20	694	1240	953	808	1110	1200	1090	884	764	711	667	627
21	701	1320	928	748	1130	1200	1090	889	766	704	657	637
22	717	1340	961	781	1110	1220	1090	869	765	783	659	644
23	708	1420	1000	817	1110	1180	1080	848	767	736	659	627
24	674	1560	946	858	1090	1130	1090	865	755	738	656	628
25	703	1460	950	968	1040	1090	1100	867	739	710	675	629
26	709	1450	944	1120	988	1070	1060	870	711	717	679	629
27	785	1950	944	1130	984	1080	1050	870	743	719	665	628
28	786	1990	921	1160	984	1070	1060	848	749	710	665	630
29	783	1770	957	1080	---	1010	1080	820	749	709	666	626
30	892	1630	938	1020	---	986	1080	824	739	709	664	616
31	907	---	941	1190	---	979	---	899	---	708	651	---
TOTAL	23273	33497	33784	29167	33946	35437	32795	28965	23532	22344	21067	19188
MEAN	751	1117	1090	941	1212	1143	1093	934	784	721	680	640
MAX	907	1990	1540	1190	1530	1400	1180	1070	867	783	716	657
MIN	674	795	921	748	984	979	995	820	711	699	651	616
AC-FT	46160	66440	67010	57850	67330	70290	65050	57450	46680	44320	41790	38060
MEAN†	743	1115	1085	941	1212	1149	1100	938	786	720	680	641
CFSM†	4.04	6.06	5.90	5.11	6.59	6.24	5.98	5.10	4.27	3.91	3.70	3.48
IN.†	4.66	6.76	6.80	5.90	6.86	7.20	6.67	5.88	4.76	4.51	4.26	3.88
AC-FT†	45700	66300	66710	57880	67320	70680	65440	57690	46750	44280	41820	38120

CAL YR 1986 TOTAL 369714 MEAN 1013 MAX 4420 MIN 651 AC-FT 733300 MEAN† 1013 CFSM† 5.51 IN.† 74.70 AC-FT† 733000
WTR YR 1987 TOTAL 336995 MEAN 923 MAX 1990 MIN 616 AC-FT 668400 MEAN† 924 CFSM† 5.02 IN.† 68.15 AC-FT† 668700

† Adjusted for change in contents in Smith River Reservoir.

14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR

LOCATION.--Lat 44°10'45", long 122°07'45", on line between NE 1/4 and NW 1/4 sec.18, T.16 S., R.6 E., Lane County, Hydrologic Unit 17090004, Willamette National Forest, on left bank 1.0 mi upstream from Glen Creek, 1.7 mi east of town of McKenzie Bridge, and at mile 69.9.

DRAINAGE AREA.--348 mi^2 at cableway 1.2 mi upstream, where all discharge measurements are made.

PERIOD OF RECORD.--August 1910 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "near McKenzie Bridge" August 1910 to September 1911 and October 1914 to September 1916.

REVISED RECORDS.--WSP 1248: 1911-16, 1920-25. WSP 1448: 1919. WSP 1638: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,419.04 ft above National Geodetic Vertical Datum of 1929. Prior to June 2, 1932, nonrecording gage at several sites within 2 mi of present site at various datums.

REMARKS.--Estimated daily discharges: Feb. 5-19. Records excellent. Flow regulated since March 1963 by Smith River Reservoir (Carmen-Smith Project) 12 mi upstream (station 14158795). No diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--77 years, 1,686 ft^3/s, 1,222,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft^3/s Dec. 22, 1964, gage height, 10.36 ft, from rating curve extended above 7,100 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 805 ft^3/s Oct. 20, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,440 ft^3/s Nov. 28, gage height, 3.58 ft; minimum daily discharge, 989 ft^3/s Oct. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	1350	2600	1790	3020	1560	1570	1620	1410	1190	1120	1030
2	1180	1250	2440	1830	2780	1570	1630	1580	1370	1190	1100	1030
3	1170	1220	2310	1870	2490	1620	1680	1610	1330	1180	1100	1030
4	1150	1200	2200	1850	2290	1630	1690	1570	1340	1160	1110	1030
5	1140	1200	2140	1800	2130	1720	1640	1550	1340	1160	1120	1030
6	1120	1210	2040	1710	2210	1810	1670	1510	1320	1160	1120	1030
7	1110	1260	1960	1690	2120	1730	1660	1530	1320	1160	1100	1030
8	1100	1280	1910	1630	2020	1650	1780	1520	1320	1170	1070	1020
9	1100	1340	1850	1610	2000	1730	1680	1530	1310	1170	1070	1020
10	1090	1360	1740	1550	1930	1700	1730	1460	1290	1160	1090	1020
11	1060	1290	1660	1510	2040	1750	1820	1440	1290	1140	1100	1020
12	1070	1290	1660	1540	1950	2010	1750	1510	1280	1130	1100	1020
13	1060	1290	1670	1520	2190	2270	1690	1500	1280	1130	1090	1020
14	1060	1380	1740	1470	2160	2290	1720	1440	1270	1130	1080	1020
15	1050	1310	1660	1450	2120	2170	1720	1400	1280	1130	1080	1020
16	1030	1340	1640	1440	2100	2060	1730	1390	1280	1130	1090	1020
17	1040	1740	1600	1390	2050	2040	1740	1400	1260	1140	1100	1020
18	1060	1720	1590	1370	2000	2020	1750	1400	1250	1290	1100	1020
19	1030	2040	1580	1400	1910	2020	1660	1350	1240	1220	1080	1000
20	1010	2170	1540	1360	1800	1910	1630	1360	1240	1160	1060	1000
21	1010	2530	1500	1290	1810	1880	1640	1370	1250	1150	1050	1010
22	1030	2720	1540	1320	1770	1880	1650	1360	1240	1250	1050	1020
23	1020	2800	1640	1360	1750	1840	1630	1330	1240	1200	1050	1010
24	989	2970	1570	1540	1720	1780	1650	1350	1230	1180	1040	1000
25	1010	2620	1560	1920	1660	1720	1640	1370	1200	1140	1060	1010
26	1040	2530	1580	2210	1590	1690	1600	1360	1180	1150	1070	1010
27	1140	3710	1570	2230	1570	1690	1600	1370	1200	1140	1050	1000
28	1130	4000	1540	2200	1560	1670	1610	1340	1210	1130	1050	1000
29	1120	3260	1600	1990	---	1600	1620	1310	1210	1130	1050	1000
30	1320	2850	1610	1870	---	1560	1630	1340	1190	1120	1050	991
31	1460	---	1590	2340	---	1550	---	1440	---	1120	1040	---
TOTAL	34089	58230	54830	52050	56740	56120	50210	44610	38170	36010	33440	30481
MEAN	1100	1941	1769	1679	2026	1810	1674	1439	1272	1162	1079	1016
MAX	1460	4000	2600	2340	3020	2290	1820	1620	1410	1290	1120	1030
MIN	989	1200	1500	1290	1560	1550	1570	1310	1180	1120	1040	991
AC-FT	67620	115500	108800	103200	112500	111300	99590	88480	75710	71430	66330	60460

CAL YR 1986 TOTAL 631219 MEAN 1729 MAX 10900 MIN 989 AC-FT 1252000
WTR YR 1987 TOTAL 544980 MEAN 1493 MAX 4000 MIN 989 AC-FT 1081000

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR

LOCATION.--Lat 44°02'50", long 122°13'00", in T.17 S., R.5 E., (unsurveyed), Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 100 ft upstream from Tipsoo Creek, 8.0 mi south of Rainbow, 9.0 mi southeast of town of Blue River, and at mile 10.4.

DRAINAGE AREA.--160 mi^2 at cableway 0.2 mi downstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to September 1987 (discontinued). Prior to October 1971, published as South Fork McKenzie River above Cougar Reservoir.

REVISED RECORDS.--WSP 1638: Drainage area. WSP 1935: 1958(M).

GAGE.--Water-stage recorder. Datum of gage is 1,709.51 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--30 years, 638 ft^3/s, 54.15 in/yr, 462,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft^3/s Dec. 22, 1964, gage height, 20.06 ft, from floodmark, from rating curve extended above 7,600 ft^3/s, on basis of slope-area measurement of peak flow; minimum discharge, 171 ft^3/s Sept. 16, 17, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0530	*2,930	*8.30	No other peak greater than base discharge.			

Minimum discharge, 184 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	383	481	1020	773	1940	454	519	698	379	232	258	200
2	354	396	889	892	1870	454	570	654	339	230	253	200
3	332	352	794	878	1510	480	597	662	320	228	248	199
4	318	327	722	809	1210	535	578	622	308	228	244	199
5	306	314	674	697	1020	608	563	616	300	228	240	198
6	295	331	621	615	938	654	545	634	294	226	237	197
7	286	421	574	554	899	604	547	642	287	225	235	197
8	278	444	535	511	860	574	659	623	284	223	232	196
9	274	610	501	476	826	552	623	589	281	223	230	196
10	268	683	472	452	792	530	645	548	275	224	228	195
11	262	550	454	439	824	544	700	508	270	221	226	196
12	258	516	455	448	797	693	668	511	266	219	225	197
13	254	497	503	434	966	862	643	509	261	216	226	197
14	254	536	544	429	953	917	630	462	258	215	228	198
15	252	518	498	403	907	880	633	432	260	213	224	203
16	250	496	466	387	851	781	653	407	259	213	221	199
17	254	695	445	380	827	767	689	385	256	234	219	197
18	258	756	432	372	793	775	667	366	251	417	217	194
19	253	972	419	361	733	719	610	349	248	340	215	193
20	250	1100	400	352	686	669	581	337	248	279	214	192
21	248	1610	387	351	648	631	583	326	276	298	213	191
22	246	1850	393	355	616	590	620	316	263	576	211	190
23	245	1550	426	370	592	614	662	313	251	387	210	189
24	241	1430	416	555	558	597	676	318	246	387	208	189
25	240	1210	404	1200	525	581	660	381	242	346	207	191
26	251	1200	446	1750	500	565	650	340	239	316	206	194
27	328	2190	432	1490	483	535	701	329	236	298	205	192
28	290	2650	413	1310	466	512	750	318	234	286	205	190
29	300	1770	511	1050	---	491	713	308	233	276	203	188
30	427	1280	540	913	---	477	697	309	233	269	202	187
31	573	---	507	1330	---	485	---	386	---	263	201	---
TOTAL	9028	27735	16293	21336	24590	19130	19032	14198	8097	8536	6891	5844
MEAN	291	924	526	688	878	617	634	458	270	275	222	195
MAX	573	2650	1020	1750	1940	917	750	698	379	576	258	203
MIN	240	314	387	351	466	454	519	308	233	213	201	187
AC-FT	17910	55010	32320	42320	48770	37940	37750	28160	16060	16930	13670	11590
CFSM	1.82	5.78	3.28	4.30	5.49	3.86	3.96	2.86	1.69	1.72	1.39	1.22
IN.	2.10	6.45	3.79	4.96	5.72	4.45	4.42	3.30	1.88	1.98	1.60	1.36

CAL YR 1986 TOTAL 230608 MEAN 632 MAX 7400 MIN 195 AC-FT 457400 CFSM 3.95 IN. 53.62
WTR YR 1987 TOTAL 180710 MEAN 495 MAX 2650 MIN 187 AC-FT 358400 CFSM 3.09 IN. 42.02

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1957 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since November 1957.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 17.0°C July 8, 1968, July 19, 20, 1979; minimum, 0.0°C Dec. 7-11, 1972, Dec. 30, 1978, Jan. 1, 1979, Jan. 4, 1982, Dec. 24, 1983.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 16.5°C July 14; minimum recorded, 1.5°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	7.5	8.0	7.5	6.5	7.0	5.5	5.0	5.0	5.5	5.0	5.0
2	8.5	7.0	8.0	7.5	6.0	6.5	5.0	4.5	5.0	5.5	5.0	5.5
3	9.0	6.5	7.5	7.0	5.5	6.5	5.5	4.5	5.0	5.5	5.0	5.5
4	9.0	7.0	8.0	7.0	6.0	6.5	6.0	5.0	5.5	5.5	5.0	5.5
5	9.5	7.0	8.0	7.0	6.0	6.5	6.0	5.5	5.5	5.0	4.5	4.5
6	9.5	7.5	8.5	7.0	6.0	6.5	6.0	5.0	5.5	5.0	4.0	4.5
7	9.5	7.5	8.5	6.0	5.0	5.5	5.0	4.0	4.5	4.0	3.5	3.5
8	9.5	7.0	8.0	6.5	5.5	6.0	4.5	4.0	4.0	3.5	3.0	3.5
9	9.5	7.0	8.0	6.5	5.5	6.0	4.0	3.5	4.0	4.0	3.0	3.5
10	9.0	7.0	8.0	6.0	5.0	5.5	4.0	3.5	3.5	4.5	3.5	4.0
11	8.5	6.5	7.5	6.5	5.0	6.0	4.5	3.5	4.0	4.5	4.0	4.0
12	8.5	6.0	7.0	6.5	5.0	6.0	4.5	4.5	4.5	5.0	4.0	4.5
13	8.0	6.0	7.0	6.5	5.5	6.0	5.5	4.5	5.0	5.0	4.0	4.5
14	8.0	6.0	7.0	6.5	6.5	6.5	5.5	5.0	5.0	4.5	3.5	4.0
15	8.5	6.0	7.0	6.0	5.0	5.5	5.0	4.0	4.5	3.5	2.0	3.0
16	8.0	6.0	7.5	6.5	6.0	6.0	4.5	4.0	4.0	2.5	1.5	2.0
17	7.5	7.0	7.5	6.5	6.0	6.5	4.5	4.0	4.0	3.0	2.0	2.5
18	8.5	7.5	8.0	7.0	5.5	6.5	5.0	4.0	4.5	4.0	3.0	3.5
19	8.0	6.0	7.0	7.0	6.5	7.0	5.0	4.5	5.0	4.0	3.0	3.5
20	8.0	6.0	7.0	7.5	6.5	7.0	4.5	4.0	4.5	3.5	2.5	3.0
21	8.0	6.0	7.0	6.5	6.0	6.0	5.5	4.5	5.0	4.0	3.0	3.5
22	8.0	6.0	7.0	6.5	6.0	6.5	6.0	5.0	5.5	4.5	3.5	4.0
23	8.0	6.0	7.0	7.0	6.5	6.5	5.5	5.0	5.5	5.0	4.5	4.5
24	8.0	7.0	7.5	6.5	6.0	6.5	5.5	4.5	5.0	5.0	4.5	4.5
25	9.0	7.5	8.5	5.5	5.0	5.5	5.5	4.5	5.0	5.0	4.5	5.0
26	8.5	7.5	8.0	6.5	5.5	6.0	6.0	4.5	5.5	6.0	5.0	5.5
27	9.0	7.5	8.0	6.5	6.5	6.5	4.5	4.0	4.0	6.0	5.0	5.5
28	8.0	6.5	7.0	6.5	6.0	6.5	5.0	3.5	4.5	5.5	5.0	5.5
29	7.5	6.5	7.0	6.0	5.5	6.0	5.5	4.5	5.0	6.0	5.5	5.5
30	8.0	7.5	7.5	5.5	5.0	5.0	5.0	4.5	4.5	6.0	5.0	5.5
31	8.5	7.5	8.0	---	---	---	5.5	4.5	5.0	6.0	5.0	5.5
MONTH	9.5	6.0	7.5	7.5	5.0	6.0	6.0	3.5	4.5	6.0	1.5	4.5

14159200 SOUTH FORK MCKENIZE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	6.0	5.0	3.5	4.5	9.0	5.5	7.0	8.0	6.0	7.0
2	6.5	5.5	6.0	5.0	3.5	4.5	9.0	6.0	7.5	7.0	6.0	6.5
3	6.5	5.5	6.0	5.0	4.5	4.5	7.0	6.5	6.5	10.0	6.5	8.0
4	6.5	5.5	6.0	6.0	4.5	5.0	8.0	6.0	7.0	11.0	7.0	9.0
5	6.5	5.5	6.0	5.5	5.0	5.5	7.0	5.5	6.5	12.0	7.5	9.5
6	6.5	5.5	6.0	5.5	4.5	5.0	7.5	5.0	6.5	12.5	8.5	10.0
7	6.5	5.5	6.0	5.5	3.5	4.5	9.0	6.0	7.0	12.5	9.0	10.5
8	7.0	5.5	6.0	5.5	4.5	5.0	8.0	6.5	7.0	13.0	9.5	11.0
9	7.0	5.5	6.0	6.5	5.0	5.5	---	---	---	13.0	9.5	11.0
10	7.5	6.5	6.5	6.5	5.5	6.0	---	---	---	13.5	9.5	11.0
11	6.5	6.0	6.5	6.0	5.5	5.5	---	---	---	13.0	9.5	11.0
12	7.0	5.5	6.0	6.5	6.0	6.0	---	---	---	11.0	10.0	10.5
13	6.5	6.0	6.5	6.5	6.0	6.0	---	---	---	12.5	9.5	11.0
14	6.5	5.5	6.0	6.0	5.5	5.5	9.0	5.5	7.0	12.0	9.5	10.5
15	6.5	5.5	6.0	6.5	5.0	5.5	9.5	6.5	7.5	13.0	9.5	11.0
16	6.5	5.5	6.0	6.5	5.0	6.0	9.5	6.0	7.5	12.5	9.0	10.5
17	6.5	5.5	6.0	6.5	5.5	6.0	7.5	5.5	7.0	11.5	7.5	9.5
18	6.0	5.0	5.5	5.5	4.5	5.0	6.5	4.5	5.5	11.5	8.0	9.5
19	---	---	---	6.0	4.5	5.0	7.5	4.0	5.5	11.0	7.0	9.0
20	---	---	---	6.5	4.5	5.5	8.5	4.5	6.5	11.5	6.5	9.0
21	---	---	---	6.5	4.5	5.5	9.5	5.5	7.5	11.5	7.0	9.0
22	5.5	4.5	5.0	6.5	4.0	5.5	10.0	6.5	8.0	12.0	7.0	9.5
23	5.0	4.5	4.5	6.0	5.0	5.5	10.0	7.0	8.0	11.0	7.5	9.0
24	4.5	3.5	4.0	7.0	5.0	5.5	10.0	7.0	8.0	9.0	8.5	8.5
25	4.0	2.5	3.5	7.0	4.5	5.5	9.5	6.0	8.0	9.5	8.0	8.5
26	4.5	2.5	3.5	7.0	5.0	6.0	10.5	6.5	8.5	8.0	7.5	8.0
27	5.0	3.5	4.0	6.5	4.0	5.0	11.0	7.5	9.0	8.5	7.5	8.0
28	5.0	3.5	4.0	7.0	4.0	5.0	9.0	8.0	8.5	10.0	7.5	8.5
29	---	---	---	7.5	4.0	5.5	10.0	7.5	8.5	12.0	7.5	9.5
30	---	---	---	8.0	4.5	6.0	8.5	7.5	8.0	9.5	8.5	9.0
31	---	---	---	8.5	5.0	6.5	---	---	---	9.5	7.5	8.5
MONTH	---	---	---	8.5	3.5	5.5	---	---	---	13.5	6.0	9.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUCUST			SEPTEMBER	
1	11.5	7.0	9.0	16.0	10.0	13.0	13.5	9.0	11.0			
2	12.5	7.0	9.5	14.5	10.5	12.5	14.5	9.5	11.5			
3	13.5	8.0	10.5	15.5	9.5	12.5	15.0	9.5	12.0			
4	14.5	9.5	11.5	13.0	10.5	12.0	---	---	---			
5	12.5	9.5	11.0	12.0	9.5	11.0	---	---	---			
6	14.0	9.0	11.0	14.0	9.5	11.5	---	---	---			
7	12.5	9.5	11.0	13.5	9.5	11.5	---	---	---			
8	13.0	9.5	11.0	14.5	10.0	12.0	---	---	---			
9	12.0	9.5	10.5	12.0	9.5	11.0	---	---	---			
10	13.5	8.0	10.5	14.5	9.5	12.0	---	---	---			
11	14.5	8.5	11.5	15.0	9.5	12.0	---	---	---			
12	14.5	9.0	11.5	15.5	10.0	12.5	---	---	---			
13	15.0	9.0	12.0	16.0	10.0	13.0	---	---	---			
14	14.0	10.0	12.0	16.5	10.5	13.5	---	---	---			
15	11.0	9.0	10.0	15.0	10.5	12.5	---	---	---			
16	10.5	8.5	9.5	12.0	9.5	10.5	---	---	---			
17	13.0	8.0	10.5	10.0	9.0	9.5	---	---	---			
18	13.5	8.0	10.5	10.5	9.5	10.0	---	---	---			
19	14.0	8.5	11.0	13.0	9.0	10.5	---	---	---			
20	12.5	9.5	10.5	12.5	9.0	10.5	---	---	---			
21	11.0	9.0	10.0	12.0	9.0	10.5	---	---	---			
22	13.5	8.5	10.5	12.5	10.0	11.0	---	---	---			
23	13.5	8.5	11.0	13.0	9.5	11.0	---	---	---			
24	15.0	8.5	11.5	14.0	9.5	11.0	---	---	---			
25	15.5	9.5	12.5	13.5	10.0	11.5	---	---	---			
26	16.0	10.0	13.0	14.0	10.0	11.5	---	---	---			
27	16.0	10.5	13.0	14.0	10.0	12.0	---	---	---			
28	16.0	10.0	13.0	14.0	10.0	12.0	---	---	---			
29	15.5	10.0	12.5	13.0	10.0	11.5	---	---	---			
30	15.5	10.5	12.5	13.0	10.0	11.5	---	---	---			
31	---	---	---	13.5	9.5	11.5	---	---	---			
MONTH	16.0	7.0	11.0	16.5	9.0	11.5	---	---	---			

14159400 COUGAR LAKE NEAR RAINBOW, OR

LOCATION.--Lat 44°07'40", long 122°14'25", in SE 1/4 SE 1/4 sec.31, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, Willamette National Forest, in intake tower near left end of Cougar Dam on South Fork McKenzie River, 2.7 mi south of Rainbow, and at mile 4.5.

DRAINAGE AREA.--207 mi^2.

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1971, published as Cougar Reservoir near Rainbow.

GAGE.--Water-stage recorder. Datum gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Elevations for Nov. 22-30, Jan. 25 to Mar. 4 provided by the Corps of Engineers, North Pacific Division, Reservoir Control Center. Lake is formed by earthfill dam with concrete spillway completed in 1963 by the Corps of Engineers; storage began September 1963. Total capacity is 219,100 acre-ft at elevation 1,699 ft, maximum pool, and usable capacity is 164,800 acre-ft between elevations 1,516 ft, minimum power pool, and 1,699 ft. Lake used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 214,100 acre-ft June 29, 1977, elevation, 1,695.06 ft; minimum contents, 33,690 acre-ft Oct. 31 to Nov. 2, 1965, elevation, 1,475.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 193,700 acre-ft June 9, elevation, 1,678.34 ft; minimum contents, 63,730 acre-ft Dec. 17, elevation, 1,531.72 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,510	50,920	1,650	162,300
1,550	75,940	1,696	215,300
1,600	114,800		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1607.45	1555.40	1567.22	1533.47	1557.90	1601.88	1637.42	1665.46	1677.59	1673.49	1669.06	1659.43
2	1606.10	1555.11	1561.36	1534.19	1563.80	1602.53	1638.33	1666.31	1677.80	1673.20	1668.83	1659.04
3	1604.65	1554.65	1558.26	1534.74	1568.70	1603.25	1639.33	1667.20	1677.96	1672.91	1668.60	1658.66
4	1603.14	1553.38	1554.82	1534.77	1571.85	1604.02	1640.23	1667.98	1678.06	1672.63	1668.35	1658.26
5	1601.57	1550.96	1552.15	1534.09	1574.30	1605.19	1641.08	1668.74	1678.14	1672.33	1668.26	1657.87
6	1599.94	1548.59	1549.92	1532.98	1576.15	1606.47	1641.85	1669.53	1678.21	1672.03	1668.14	1657.49
7	1598.25	1546.81	1547.41	1532.27	1577.85	1607.55	1642.66	1670.29	1678.28	1671.73	1667.90	1657.08
8	1596.51	1545.05	1545.28	1532.15	1579.35	1608.54	1643.74	1671.03	1678.33	1671.43	1667.61	1656.31
9	1594.68	1544.11	1543.46	1532.12	1580.70	1609.45	1644.69	1671.68	1678.31	1671.12	1667.31	1655.12
10	1592.83	1544.30	1541.47	1532.17	1581.98	1610.28	1645.79	1672.24	1678.15	1670.83	1667.00	1654.02
11	1590.91	1544.74	1539.28	1532.19	1583.35	1611.22	1646.97	1672.73	1677.97	1670.52	1666.68	1652.78
12	1588.98	1544.45	1537.16	1532.09	1584.45	1612.67	1648.02	1673.33	1677.80	1670.20	1666.37	1651.55
13	1586.98	1543.57	1535.30	1532.30	1585.90	1614.69	1648.97	1673.86	1677.61	1669.89	1666.07	1650.31
14	1584.97	1542.52	1533.48	1532.57	1586.44	1617.00	1649.90	1674.29	1677.39	1669.56	1665.77	1649.65
15	1582.91	1540.95	1532.41	1532.41	1586.73	1619.02	1650.80	1674.65	1677.21	1669.22	1665.46	1649.26
16	1580.82	1539.36	1531.91	1532.47	1587.59	1620.64	1651.77	1674.93	1677.00	1668.88	1665.14	1648.84
17	1578.71	1540.14	1531.76	1532.72	1589.15	1622.34	1652.86	1675.19	1676.78	1668.63	1664.80	1648.43
18	1576.60	1541.98	1531.88	1532.95	1590.76	1624.04	1653.87	1675.40	1676.56	1668.93	1664.47	1648.00
19	1574.39	1544.89	1531.92	1533.15	1592.45	1625.48	1654.71	1675.59	1676.33	1668.98	1664.14	1647.57
20	1572.13	1547.89	1531.89	1533.32	1593.90	1626.76	1655.48	1675.74	1676.11	1668.86	1663.79	1647.13
21	1569.83	1552.62	1531.88	1533.50	1595.15	1627.90	1656.25	1675.85	1675.98	1668.83	1663.46	1646.68
22	1567.48	1559.30	1531.96	1533.86	1596.39	1628.90	1657.10	1675.95	1675.78	1669.68	1663.10	1646.23
23	1565.08	1562.67	1532.14	1534.43	1597.47	1630.09	1658.04	1676.04	1675.55	1669.88	1662.76	1645.26
24	1562.60	1566.04	1532.19	1536.06	1598.34	1631.16	1658.97	1676.16	1675.33	1670.00	1662.41	1643.94
25	1560.10	1565.70	1532.12	1539.30	1599.16	1632.16	1659.82	1676.42	1675.09	1670.04	1662.06	1642.63
26	1557.65	1563.30	1532.21	1543.80	1599.88	1633.08	1660.66	1676.57	1674.85	1670.03	1661.69	1641.31
27	1556.39	1567.70	1532.18	1546.60	1600.57	1633.91	1661.60	1676.69	1674.58	1669.94	1661.32	1639.96
28	1555.66	1578.60	1532.10	1549.59	1601.28	1634.67	1662.65	1676.77	1674.31	1669.81	1660.95	1638.59
29	1555.03	1579.70	1532.11	1550.35	---	1635.36	1663.57	1676.75	1674.05	1669.65	1660.58	1637.22
30	1554.94	1574.55	1532.09	1550.58	---	1636.00	1664.49	1676.92	1673.77	1669.47	1660.20	1635.83
31	1555.33	---	1532.21	1552.02	---	1636.66	---	1677.28	---	1669.27	1659.82	---
MAX	1607.45	1579.70	1567.22	1552.02	1601.28	1636.66	1664.49	1677.28	1678.33	1673.49	1669.06	1659.43
MIN	1554.94	1539.36	1531.76	1532.09	1557.90	1601.88	1637.42	1665.46	1673.77	1668.63	1659.82	1635.83
(†)	79690	93960	64040	77350	115900	148700	177900	192500	188400	183300	172800	147900
(‡)	-42710	+14270	-29920	+13310	+38550	+32800	+29200	+14600	-4100	-5100	-10500	-24900

CAL YR 1986 MAX 1690.34 MIN 1531.76 AC-FT‡ -110
WTR YR 1987 MAX 1678.33 MIN 1531.76 AC-FT‡ +25500

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR

LOCATION.--Lat 44°08'10", long 122°14'50", in NE 1/4 sec.31, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 0.2 mi upstream from Cougar Creek, 0.6 mi downstream from Cougar Dam, 2.1 mi south of Rainbow, and at mile 3.9.

DRAINAGE AREA.--208 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1638: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,236.42 ft above National Geodetic Vertical Datum of 1929 (Federal Highway Administration bench mark). Oct. 1 to Nov. 4, 1947, nonrecording gage at site 40 ft upstream at datum 0.80 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1963 by Cougar Lake (station 14159400), usable capacity, 165,000 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--40 years, 863 ft³/s, 56.34 in/yr, 625,200 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s Dec. 11, 1956, gage height, 8.66 ft, from rating curve extended above 8,100 ft³/s; maximum gage height, 8.90 ft Dec. 22, 1955 (backwater from debris); minimum discharge, 17 ft³/s Nov. 18, 1965; minimum daily, 85 ft³/s Apr. 26-28, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 24,500 ft³/s Dec. 28, 1945, gage height, 8.8 ft, from floodmarks, at Corps of Engineers gage at site 40 ft upstream at datum 0.80 ft higher; gage height at present site and datum, about 9.3 ft, computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,340 ft³/s Nov. 30, gage height, 4.37 ft; minimum discharge, 172 ft³/s Jan. 13; minimum daily, 296 ft³/s June 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	984	616	4200	799	1180	315	320	320	298	416	412	423
2	989	616	3350	1090	741	316	316	320	300	420	412	423
3	991	616	2130	1120	553	312	312	315	305	420	412	420
4	1000	869	2090	1140	545	318	315	318	310	422	412	421
5	1000	1270	1780	1150	541	324	315	316	313	421	320	423
6	1010	1280	1560	1170	537	328	316	315	311	418	333	423
7	1020	1290	1560	968	538	322	313	317	307	414	393	423
8	1030	1290	1370	709	541	320	310	319	310	418	414	593
9	1030	1300	1230	625	538	322	318	319	373	420	415	793
10	1050	939	1240	580	530	324	318	317	407	421	421	754
11	1050	663	1250	578	528	316	312	320	407	421	424	810
12	1060	874	1250	646	525	314	308	317	409	423	415	815
13	1070	1040	1270	507	753	321	315	318	410	424	416	814
14	1070	1190	1290	509	1050	321	317	320	412	420	415	544
15	1080	1310	970	584	1050	318	313	305	414	424	417	432
16	1100	1310	743	479	737	315	312	314	408	422	418	434
17	1100	881	614	425	522	311	314	321	409	423	418	439
18	1110	640	532	421	404	316	315	314	409	422	417	441
19	1130	643	550	415	327	321	311	322	413	420	416	440
20	1130	837	534	412	324	317	316	317	418	418	418	443
21	1140	1260	497	413	325	312	316	312	417	420	420	443
22	1160	1240	505	362	328	312	302	312	412	378	418	447
23	1160	1210	521	337	330	312	304	310	408	413	418	686
24	1180	1200	541	340	330	314	311	312	408	411	418	854
25	1190	1890	562	671	329	315	319	313	408	404	417	864
26	1190	2680	589	1220	327	316	316	316	411	399	419	868
27	850	1890	604	1200	326	319	316	317	410	398	420	867
28	604	729	583	1190	320	320	318	339	412	399	420	866
29	615	2220	671	1180	---	312	315	351	417	404	422	875
30	617	3830	689	1180	---	314	318	299	411	415	423	884
31	618	---	618	1180	---	321	---	299	---	413	423	---
TOTAL	31338	37613	35893	23600	15079	9838	9421	9824	11457	12861	12736	18362
MEAN	1011	1254	1158	761	539	317	314	317	382	415	411	612
MAX	1190	3830	4200	1220	1180	328	320	351	418	424	424	884
MIN	604	616	497	337	320	311	302	299	298	378	320	420
AC-FT	62160	74610	71190	46810	29910	19510	18690	19490	22720	25510	25260	36420
MEAN†	316	1494	671	978	1233	851	805	554	313	332	240	194
CFSM†	1.52	7.18	3.23	4.70	5.93	4.09	3.87	2.66	1.50	1.60	1.15	0.93
IN.†	1.75	8.01	3.72	5.42	6.17	4.72	4.32	3.07	1.68	1.84	1.33	1.04
AC-FT†	19450	88880	41270	60120	68460	52310	47890	34090	18620	20410	14760	11520

CAL YR 1986 TOTAL 299635 MEAN 821 MAX 5830 MIN 252 AC-FT 594300 MEAN† 821 CFSM† 3.95 IN.† 53.58 AC-FT† 594200
WTR YR 1987 TOTAL 228022 MEAN 625 MAX 4200 MIN 298 AC-FT 452300 MEAN† 660 CFSM† 3.17 IN.† 43.08 AC-FT† 477800

† Adjusted for change in contents in Cougar Lake.

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1955 to current year.

INSTRUMENTATION.--Temperature recorder since July 1955.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 20.0°C July 28, 1958; minimum, 0.5°C Jan. 20-23, 1962.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 13.5°C Oct. 19; minimum recorded, 3.5°C Jan. 16-24.

TEMPERATUPE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	12.5	13.0	11.5	11.0	11.0	---	---	---	4.5	4.5	4.5
2	13.0	13.0	13.0	11.5	11.0	11.0	---	---	---	4.5	4.5	4.5
3	13.0	12.5	13.0	11.0	10.5	11.0	---	---	---	4.5	4.5	4.5
4	13.0	12.5	13.0	11.0	10.5	11.0	6.0	6.0	6.0	4.5	4.5	4.5
5	13.0	13.0	13.0	11.0	11.0	11.0	6.0	5.5	6.0	4.5	4.0	4.0
6	13.0	12.5	13.0	11.0	10.5	11.0	5.5	5.5	5.5	4.5	4.0	4.0
7	13.0	12.5	13.0	11.0	10.5	10.5	5.5	5.5	5.5	4.5	4.0	4.0
8	13.0	12.5	13.0	10.5	10.0	10.5	5.5	5.5	5.5	4.0	4.0	4.0
9	13.0	12.5	13.0	10.0	9.5	10.0	---	---	---	4.0	4.0	4.0
10	13.0	12.5	13.0	9.5	9.0	9.0	---	---	---	4.0	4.0	4.0
11	13.0	12.5	12.5	9.5	9.0	9.0	---	---	---	4.0	4.0	4.0
12	13.0	12.5	12.5	9.5	9.0	9.0	5.0	5.0	5.0	4.0	4.0	4.0
13	13.0	12.5	12.5	9.0	8.5	9.0	5.0	4.5	5.0	4.5	4.0	4.0
14	13.0	12.5	12.5	8.5	8.5	8.5	5.0	4.5	4.5	4.5	4.0	4.0
15	13.0	12.5	12.5	9.0	8.5	8.5	5.0	4.5	4.5	4.0	4.0	4.0
16	12.5	12.5	12.5	8.5	8.0	8.5	4.5	4.5	4.5	4.0	3.5	3.5
17	12.5	12.5	12.5	8.5	8.0	8.0	4.5	4.5	4.5	4.0	3.5	3.5
18	12.5	12.5	12.5	8.5	8.0	8.0	4.5	4.5	4.5	4.0	3.5	4.0
19	13.5	12.5	13.0	8.5	8.0	8.0	4.5	4.5	4.5	3.5	3.5	3.5
20	13.0	12.5	12.5	8.5	8.0	8.0	4.5	4.5	4.5	3.5	3.5	3.5
21	12.5	12.5	12.5	8.0	8.0	8.0	4.5	4.5	4.5	4.0	3.5	3.5
22	13.0	12.5	12.5	8.0	7.5	7.5	4.5	4.5	4.5	4.0	3.5	3.5
23	12.5	12.0	12.5	7.5	7.5	7.5	4.5	4.5	4.5	4.0	3.5	4.0
24	13.0	12.5	12.5	7.5	7.0	7.5	4.5	4.5	4.5	4.0	3.5	4.0
25	12.5	12.0	12.0	7.0	7.0	7.0	4.5	4.5	4.5	4.0	4.0	4.0
26	12.5	12.0	12.5	7.0	7.0	7.0	4.5	4.5	4.5	4.0	4.0	4.0
27	12.5	11.5	12.0	7.0	7.0	7.0	4.5	4.0	4.5	4.0	4.0	4.0
28	12.0	11.5	12.0	7.5	7.0	7.0	4.5	4.0	4.0	4.0	4.0	4.0
29	12.0	11.5	11.5	7.0	6.5	6.5	4.5	4.0	4.5	4.0	4.0	4.0
30	12.0	11.5	11.5	6.5	6.5	6.5	4.5	4.5	4.5	4.5	4.0	4.5
31	12.0	11.0	11.5	---	---	---	4.5	4.5	4.5	4.5	4.5	4.5
MONTH	13.5	11.0	12.5	11.5	6.5	8.5	---	---	---	4.5	3.5	4.0

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.5	4.5	5.5	5.0	5.0	6.0	5.0	5.5	6.0	5.0	5.5
2	4.5	4.5	4.5	5.5	5.0	5.0	6.0	5.0	5.5	5.5	5.5	5.5
3	4.5	4.5	4.5	5.0	5.0	5.0	5.5	5.5	5.5	6.5	5.0	5.5
4	5.0	4.5	4.5	5.5	5.0	5.5	6.0	5.0	5.5	7.0	5.0	5.5
5	5.0	4.5	5.0	5.0	5.0	5.0	5.5	5.0	5.0	7.0	5.5	5.5
6	5.0	5.0	5.0	5.5	5.0	5.0	5.5	5.0	5.5	7.0	5.5	6.0
7	5.0	5.0	5.0	5.5	4.5	5.0	5.5	5.0	5.5	7.0	5.5	6.0
8	5.0	5.0	5.0	5.0	5.0	5.0	6.0	5.0	5.5	6.5	5.5	6.0
9	5.0	5.0	5.0	5.5	5.0	5.0	6.0	5.0	5.5	6.5	5.0	6.0
10	5.5	5.0	5.0	5.5	5.0	5.0	5.5	5.0	5.5	6.5	5.5	6.0
11	5.5	5.0	5.0	5.5	5.0	5.0	5.5	5.0	5.5	6.5	5.5	6.0
12	5.5	5.0	5.0	5.5	5.0	5.0	6.0	5.0	5.5	6.0	5.5	6.0
13	5.5	5.0	5.0	5.5	5.0	5.0	6.0	5.0	5.5	7.0	5.5	6.0
14	5.5	5.5	5.5	5.5	5.0	5.5	6.5	5.0	5.5	6.0	5.5	6.0
15	5.5	5.0	5.5	6.0	5.0	5.5	6.0	5.0	5.5	6.0	5.5	5.5
16	5.5	5.0	5.5	5.5	5.0	5.5	6.5	5.0	5.5	7.0	5.5	6.0
17	5.0	5.0	5.0	5.5	5.0	5.5	5.5	5.0	5.5	6.5	5.0	6.0
18	5.5	5.0	5.0	5.5	5.0	5.0	6.0	5.0	5.5	6.5	5.5	6.0
19	5.5	5.0	5.0	5.5	5.0	5.0	6.5	5.0	5.5	6.5	5.5	6.0
20	5.5	5.0	5.0	5.5	5.0	5.0	6.5	5.0	5.5	7.0	5.0	6.0
21	5.5	5.0	5.0	5.5	5.0	5.0	6.5	5.0	5.5	6.0	5.0	5.5
22	5.5	5.0	5.0	5.5	5.0	5.0	6.5	5.0	5.5	6.5	5.5	6.0
23	5.5	5.0	5.0	5.5	5.0	5.0	6.5	5.0	5.5	6.5	5.5	6.0
24	5.0	4.5	5.0	6.0	5.0	5.5	6.5	5.0	5.5	6.0	5.5	5.5
25	5.5	4.5	5.0	5.5	5.0	5.0	6.5	5.0	5.5	6.0	5.5	5.5
26	5.5	4.5	5.0	6.0	5.0	5.0	7.0	5.0	5.5	6.0	5.5	5.5
27	5.5	5.0	5.0	6.0	5.0	5.5	7.0	5.0	5.5	6.0	5.5	5.5
28	5.5	5.0	5.0	6.0	5.0	5.0	6.0	5.0	5.5	7.0	5.5	6.0
29	---	---	---	6.0	5.0	5.0	6.5	5.5	5.5	6.0	5.5	6.0
30	---	---	---	6.0	5.0	5.5	6.0	5.0	5.5	6.0	5.5	5.5
31	---	---	---	6.0	5.0	5.5	---	---	---	6.5	5.5	6.0
MONTH	5.5	4.5	5.0	6.0	4.5	5.0	7.0	5.0	5.5	7.0	5.0	6.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.5	5.5	6.0	8.0	6.0	7.0	9.5	7.0	8.0	10.5	8.0	9.5
2	6.5	5.5	6.0	7.5	6.0	7.0	9.5	7.0	8.0	11.0	8.5	9.5
3	6.5	5.5	6.0	7.5	6.0	7.0	9.5	7.5	8.5	11.0	8.5	9.5
4	6.5	5.5	6.0	7.5	6.0	7.0	9.5	7.5	8.5	10.5	9.0	10.0
5	6.5	5.5	6.0	7.0	6.5	7.0	10.5	7.5	8.5	11.0	8.5	10.0
6	7.0	5.5	6.0	8.0	6.0	7.0	11.0	7.5	8.5	11.0	8.5	9.5
7	6.5	5.5	6.0	7.5	6.5	7.0	11.0	7.5	9.0	11.0	9.0	10.0
8	6.5	5.5	6.0	8.0	6.5	7.0	10.0	7.5	9.0	11.0	9.0	10.5
9	6.5	5.5	6.0	7.5	6.5	7.0	10.0	7.5	8.5	11.0	10.0	10.5
10	6.5	5.5	6.0	8.0	6.0	7.0	10.0	8.0	8.5	11.0	9.5	10.5
11	6.5	5.5	6.0	8.0	6.5	7.0	9.5	8.0	8.5	11.0	9.5	10.5
12	6.5	6.0	6.0	8.5	6.5	7.5	10.0	8.0	9.0	11.0	10.5	10.5
13	6.5	5.5	6.0	8.5	6.5	7.0	9.5	7.5	8.5	11.0	10.5	11.0
14	6.5	5.5	6.0	8.5	6.5	7.5	9.5	8.0	9.0	11.0	8.5	10.5
15	6.5	5.5	6.0	8.5	6.5	7.5	10.0	8.0	9.0	11.5	9.0	10.5
16	6.5	6.0	6.0	8.0	7.0	7.5	10.0	8.0	9.0	11.0	10.0	10.5
17	7.0	5.5	6.0	7.5	7.0	7.5	10.0	8.0	9.0	11.5	9.5	10.5
18	7.0	5.5	6.5	7.5	7.0	7.5	10.0	8.0	9.0	11.5	10.0	10.5
19	6.5	5.5	6.5	8.0	7.0	7.5	10.0	8.0	9.0	11.5	10.0	11.0
20	6.5	5.5	6.0	8.5	7.0	7.5	10.0	8.0	9.0	11.5	10.0	11.0
21	6.5	5.5	6.0	8.5	6.5	7.5	10.5	8.0	9.0	11.5	10.0	11.0
22	7.0	6.0	6.5	8.5	7.0	7.5	10.5	8.0	9.0	11.5	10.0	11.0
23	7.5	6.0	6.5	8.5	7.5	7.5	10.0	8.0	9.0	12.0	10.5	11.5
24	7.0	5.5	6.5	9.0	7.0	8.0	10.5	8.0	9.0	12.0	11.0	12.0
25	7.0	6.0	6.5	8.5	7.0	7.5	10.5	8.5	9.5	12.0	11.0	12.0
26	7.5	6.0	6.5	8.5	7.0	8.0	10.5	8.0	9.5	12.5	11.5	12.0
27	7.5	6.0	6.5	9.0	6.5	8.0	10.5	8.5	9.5	12.5	12.0	12.0
28	7.5	6.0	6.5	8.5	7.0	8.0	10.5	8.5	9.5	12.5	11.5	12.0
29	7.5	6.0	6.5	8.5	7.0	8.0	10.5	8.5	9.5	12.5	12.0	12.5
30	8.0	6.0	6.5	9.0	7.0	8.0	11.0	8.5	9.5	13.0	12.5	12.5
31	---	---	---	9.0	7.5	8.0	11.0	8.5	10.0	---	---	---
MONTH	8.0	5.5	6.0	9.0	6.0	7.5	11.0	7.0	9.0	13.0	8.0	11.0

14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR

LOCATION.--Lat 44°13'05", long 122°15'50", in SE 1/4 NE 1/4 sec.36, T.15 S., R.4 E., Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 0.2 mi downstream from Tidbits Creek, 5.5 mi northeast of town of Blue River, and at mile 8.5.

DRAINAGE AREA.--45.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,386.90 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: July 17-21. Water-discharge records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--24 years, 257 ft^3/s, 76.20 in/yr, 186,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft^3/s Dec. 22, 1964, gage height, 15.32 ft, from floodmarks, from rating curve extended above 2,800 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 7.1 ft^3/s Sept. 9, 23-25, 30, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1000	*2,680	*7.59	No other peak greater than base discharge.			

Minimum discharge, 7.1 ft^3/s Sept. 9, 23-25, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	232	398	447	1590	125	168	104	72	23	22	10
2	89	151	315	414	1260	137	186	114	70	22	21	9.6
3	74	114	260	576	799	194	185	142	61	21	20	9.1
4	64	94	225	478	541	254	169	121	55	21	19	9.1
5	57	85	204	349	414	287	155	109	52	21	18	9.1
6	52	108	181	273	365	319	151	102	49	21	18	9.1
7	48	219	160	221	340	270	150	96	47	21	18	8.9
8	43	233	145	183	313	232	203	89	45	21	17	8.3
9	38	327	132	159	290	230	178	85	44	20	16	8.0
10	37	305	120	143	266	220	182	80	42	20	16	7.9
11	35	219	113	139	274	244	219	75	39	20	16	7.9
12	33	190	112	152	257	552	214	86	38	19	15	8.4
13	30	172	151	155	462	802	188	82	36	18	14	9.1
14	28	217	215	149	488	787	170	74	35	18	16	9.4
15	26	184	173	130	423	603	160	70	34	17	16	10
16	26	204	153	116	426	418	159	67	34	16	15	10
17	26	576	135	109	408	391	159	63	34	17	15	9.8
18	28	523	125	103	362	405	152	61	33	78	14	9.3
19	26	674	127	98	304	352	140	59	31	72	14	9.1
20	25	817	115	94	264	304	132	56	31	54	13	8.4
21	23	1170	106	92	236	268	130	54	34	45	13	8.2
22	22	1250	112	94	215	236	132	52	34	58	13	7.8
23	22	1120	201	115	196	246	132	51	31	51	13	7.4
24	21	1020	183	404	176	251	127	50	29	42	12	7.1
25	21	742	169	824	160	233	120	50	27	37	11	7.1
26	26	853	237	1050	148	215	112	50	26	32	11	8.1
27	84	2130	209	876	138	193	112	49	25	30	11	9.0
28	68	1890	174	737	130	175	110	45	25	28	11	8.2
29	61	921	201	553	---	162	102	44	24	26	11	7.8
30	227	559	227	424	---	153	99	49	23	26	10	7.4
31	360	---	200	883	---	154	---	67	---	23	10	---
TOTAL	1825	17299	5578	10540	11245	9412	4596	2296	1160	938	459	258.6
MEAN	58.9	577	180	340	402	304	153	74.1	38.7	30.3	14.8	8.62
MAX	360	2130	398	1050	1590	802	219	142	72	78	22	10
MIN	21	85	106	92	130	125	99	44	23	16	10	7.1
AC-FT	3620	34310	11060	20910	22300	18670	9120	4550	2300	1860	910	513
CFSM	1.29	12.6	3.93	7.42	8.77	6.63	3.34	1.62	.84	.66	.32	.19
IN.	1.48	14.05	4.53	8.56	9.13	7.64	3.73	1.86	.94	.76	.37	.21

CAL YR 1986 TOTAL 93966 MEAN 257 MAX 4530 MIN 12 AC-FT 186400 CFSM 5.62 IN. 76.32
WTR YR 1987 TOTAL 65606.6 MEAN 180 MAX 2130 MIN 7.1 AC-FT 130100 CFSM 3.92 IN. 53.29

14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: September 1963 to current year.

INSTRUMENTATION.--Temperature recorder since September 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 23.0°C Aug. 3, 4, 1974, July 20, 1979; minimum, 0.0°C on several days in 1969, 1971-74, 1976, 1979-80, 1983.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 18.5°C Aug. 3; minimum recorded, 0.5°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.0	9.0	9.5	8.5	7.5	8.0	6.0	5.5	5.5	5.5	4.5	5.0
2	9.0	7.5	8.5	8.0	7.0	7.5	5.5	5.5	5.5	5.5	5.0	5.0
3	9.5	8.5	9.0	8.0	7.0	7.5	5.5	5.0	5.0	6.0	5.5	5.5
4	10.0	8.5	9.5	8.0	7.0	7.5	6.0	5.0	5.5	6.0	5.5	5.5
5	10.5	9.0	10.0	8.5	7.5	8.0	6.5	6.0	6.0	5.5	5.0	5.5
6	11.0	9.0	10.0	8.0	7.5	8.0	6.5	5.5	6.0	5.0	4.0	4.5
7	11.0	9.5	10.0	7.5	6.0	6.5	5.0	4.0	4.5	4.0	3.5	3.5
8	10.5	9.0	10.0	7.0	6.5	7.0	4.5	4.0	4.0	3.5	3.0	3.0
9	10.5	9.0	10.0	7.5	6.5	7.0	4.0	3.5	3.5	3.5	2.5	3.0
10	10.5	9.0	9.5	7.0	6.5	6.5	3.5	3.0	3.5	4.0	3.0	3.5
11	9.5	8.0	9.0	7.5	6.0	6.5	4.5	3.5	4.0	4.0	3.5	3.5
12	9.0	7.5	8.0	7.0	6.0	6.5	5.0	4.5	4.5	4.5	4.0	4.0
13	9.0	7.5	8.0	7.5	6.0	6.5	5.5	4.5	5.0	4.0	3.5	3.5
14	8.5	7.0	8.0	8.0	7.0	7.5	6.0	5.5	5.5	3.5	3.0	3.0
15	9.0	7.5	8.0	7.5	7.0	7.0	5.5	4.5	4.5	3.0	1.5	2.0
16	9.0	7.5	8.5	7.0	7.0	7.0	4.5	4.0	4.0	1.5	.5	1.0
17	9.5	8.5	9.0	7.5	7.0	7.5	4.0	4.0	4.0	2.5	1.0	1.5
18	10.0	9.0	9.5	8.0	7.0	7.5	4.5	4.0	4.0	3.0	2.0	2.5
19	9.5	9.0	9.0	7.5	7.5	7.5	5.5	4.5	5.0	3.0	2.5	2.5
20	9.0	7.5	8.5	8.0	7.0	7.5	5.0	4.0	4.5	2.5	1.5	2.0
21	9.0	7.5	8.5	7.0	6.0	7.0	5.5	4.5	5.0	3.0	2.0	2.5
22	9.0	7.5	8.5	7.0	6.0	6.5	6.0	5.5	5.5	3.5	2.5	3.0
23	9.0	7.5	8.5	7.0	6.5	7.0	6.0	5.5	5.5	4.0	3.5	3.5
24	10.0	8.5	9.5	7.0	6.5	7.0	5.5	5.0	5.5	4.5	3.5	4.0
25	10.5	9.5	10.0	6.5	5.5	6.0	5.5	4.5	5.0	5.0	4.5	5.0
26	11.0	10.5	10.5	7.0	6.0	6.5	6.0	5.5	5.5	5.5	5.0	5.5
27	10.5	10.0	10.5	7.0	7.0	7.0	5.5	4.5	5.0	6.0	5.0	5.5
28	10.0	9.0	9.5	7.0	6.5	7.0	5.0	4.0	4.5	5.0	5.0	5.0
29	9.0	8.5	9.0	7.0	6.0	6.5	5.5	5.0	5.5	5.5	5.0	5.5
30	9.0	9.0	9.0	6.0	5.5	5.5	5.5	4.5	5.0	5.5	5.0	5.5
31	9.5	9.0	9.0	---	---	---	5.5	4.5	5.0	5.5	3.5	4.5
MONTH	11.0	7.0	9.0	8.5	5.5	7.0	6.5	3.0	5.0	6.0	.5	4.0

14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.5	5.0	5.5	6.0	5.0	5.5	9.5	6.0	7.5	9.5	8.0	9.0
2	6.0	5.0	5.5	6.0	5.0	5.5	9.5	7.0	8.0	8.0	7.0	7.5
3	6.0	5.5	5.5	6.5	6.0	6.0	8.0	7.0	7.0	11.0	7.5	9.0
4	6.0	5.0	5.5	7.0	6.0	6.5	8.5	6.5	7.0	12.5	8.5	10.5
5	5.5	5.0	5.5	7.0	6.5	6.5	7.0	6.0	6.5	13.5	9.0	11.0
6	6.0	5.0	5.5	6.5	5.0	6.0	8.0	6.5	7.0	14.5	10.5	12.5
7	6.0	4.5	5.5	6.0	4.5	5.0	9.0	7.0	8.0	15.0	11.5	13.0
8	6.0	5.0	5.5	6.0	5.5	5.5	8.0	7.0	7.5	15.0	12.0	13.5
9	6.0	5.0	5.5	6.5	5.5	6.0	8.5	5.5	7.0	15.5	12.0	14.0
10	6.5	5.5	6.0	6.5	6.0	6.0	7.5	6.5	7.0	15.0	12.0	13.5
11	6.0	5.0	6.0	6.0	6.0	6.0	6.5	5.5	6.0	14.5	12.0	13.5
12	6.0	4.5	5.5	7.0	6.0	6.5	8.0	5.0	6.0	14.0	12.5	13.0
13	6.0	5.5	5.5	6.5	6.0	6.5	9.0	5.0	7.0	14.5	11.5	13.0
14	5.5	5.0	5.5	6.0	5.5	6.0	9.5	6.0	8.0	13.5	12.0	13.0
15	5.5	5.0	5.5	6.5	5.5	6.0	10.5	7.0	8.5	14.0	12.0	12.5
16	5.5	5.0	5.0	6.5	5.5	6.0	10.5	7.5	9.0	13.5	10.5	12.0
17	5.5	5.0	5.5	6.5	6.0	6.5	8.5	6.5	8.0	12.5	9.5	11.0
18	5.5	4.5	5.0	5.5	4.5	5.0	7.0	5.5	6.0	12.0	9.5	11.0
19	5.5	4.5	5.0	6.0	4.5	5.0	8.0	4.5	6.0	11.0	8.5	10.0
20	5.5	4.0	4.5	6.5	5.0	5.5	9.0	5.0	7.0	11.0	8.0	9.5
21	5.5	5.0	5.0	6.5	4.5	5.5	10.5	6.5	8.5	12.0	8.5	10.5
22	5.0	4.0	4.5	6.5	4.5	5.5	11.5	8.0	9.5	13.0	9.5	11.0
23	4.5	3.5	4.0	6.0	5.5	6.0	11.5	8.5	10.0	13.0	10.0	11.5
24	4.0	3.5	3.5	7.0	5.0	6.0	11.0	8.0	9.5	12.0	10.5	11.0
25	3.5	2.5	3.0	7.0	4.5	6.0	10.5	7.5	9.0	11.0	10.0	10.5
26	4.0	2.5	3.0	6.5	5.0	5.5	12.0	8.0	10.0	10.5	9.5	10.0
27	5.0	3.5	4.0	6.5	4.5	5.5	13.0	9.0	11.0	10.0	9.0	9.5
28	5.5	4.0	4.5	7.0	4.0	5.0	12.0	10.5	11.0	11.5	9.0	10.0
29	---	---	---	7.0	4.0	5.5	12.5	9.0	10.5	13.5	10.0	11.5
30	---	---	---	8.0	4.5	6.0	11.5	9.5	10.5	12.0	10.5	11.0
31	---	---	---	8.5	5.5	7.0	---	---	---	10.5	9.0	9.5
MONTH	6.5	2.5	5.0	8.5	4.0	6.0	13.0	4.5	8.0	15.5	7.0	11.0

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.5	8.0	9.5	---	---	---	17.0	13.0	15.0	---	---	---
2	13.0	8.5	10.5	---	---	---	17.5	13.0	15.5	---	---	---
3	14.5	10.0	12.5	---	---	---	18.5	14.0	16.0	---	---	---
4	16.0	12.0	14.0	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	14.0	11.5	13.0	---	---	---	---	---	---
21	---	---	---	14.0	12.0	13.0	---	---	---	---	---	---
22	---	---	---	14.0	12.5	13.5	---	---	---	14.5	11.5	13.0
23	---	---	---	15.0	11.5	13.0	---	---	---	14.0	12.0	13.0
24	---	---	---	17.0	13.5	15.0	---	---	---	14.0	12.0	13.0
25	---	---	---	16.5	14.5	15.5	---	---	---	13.5	13.0	13.0
26	---	---	---	17.5	14.0	15.5	---	---	---	13.0	12.0	12.5
27	---	---	---	17.5	14.5	15.5	---	---	---	---	---	---
28	---	---	---	18.0	14.5	16.0	---	---	---	---	---	---
29	---	---	---	17.5	14.5	15.5	---	---	---	---	---	---
30	---	---	---	16.5	14.0	15.0	---	---	---	---	---	---
31	---	---	---	17.0	13.5	15.0	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

14161500 LOOKOUT CREEK NEAR BLUE RIVER, OR

LOCATION.--Lat 44°12'35", long 122°15'20", in T.15 or 16 S., R.5 E. (unsurveyed), Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 6.0 mi northeast of town of Blue River, and at mile 0.5.

DRAINAGE AREA.--24.1 mi^2.

PERIOD OF RECORD.--August 1949 to September 1955, September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,377.76 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Aug. 25 to Sept. 4. Water-discharge records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--30 years, 125 ft^3/s, 70.44 in/yr, 90,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft^3/s Dec. 22, 1964, gage height, 8.88 ft, from rating curve extended above 1,300 ft^3/s, on basis of slope-area measurement of peak flow; minimum discharge, 4.8 ft^3/s Sept. 16, 17, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0200	*970	*5.00				

Minimum discharge, 6.0 ft^3/s Sept. 22-24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	80	249	215	590	65	81	57	44	15	14	7.8
2	41	56	193	245	559	67	88	61	36	15	14	7.5
3	35	45	157	259	404	71	92	83	32	15	13	7.2
4	31	38	136	231	297	84	86	68	29	15	13	6.9
5	28	34	121	185	233	101	81	60	28	15	13	6.7
6	25	38	106	151	197	123	84	56	27	14	13	6.6
7	23	68	93	128	177	110	82	52	26	14	13	6.6
8	21	71	83	110	160	101	110	48	25	14	12	6.7
9	20	103	75	98	148	100	96	45	24	14	12	6.7
10	19	113	69	87	138	97	94	41	23	14	12	6.6
11	18	85	64	81	142	108	99	39	22	14	12	6.6
12	17	73	66	83	130	197	92	49	22	13	12	6.8
13	16	67	83	81	184	270	85	44	21	13	12	7.0
14	16	85	97	81	199	277	80	40	21	13	12	7.0
15	15	70	84	74	185	244	79	37	21	13	12	8.5
16	15	75	75	68	186	196	80	35	21	12	12	7.7
17	15	229	69	63	193	189	81	33	20	13	12	7.1
18	15	235	66	60	181	187	76	32	19	44	11	6.9
19	14	325	65	57	158	171	67	31	19	33	11	6.7
20	14	341	60	54	140	152	63	30	18	24	11	6.6
21	13	517	57	52	124	136	62	28	21	20	11	6.5
22	13	636	61	52	113	120	65	28	19	28	11	6.2
23	13	575	89	57	105	125	67	27	18	22	11	6.0
24	13	521	85	143	95	119	64	27	17	20	11	6.1
25	13	390	82	307	86	112	60	31	17	18	9.5	6.4
26	14	377	112	416	79	104	57	28	16	17	9.0	7.3
27	35	736	105	364	74	96	60	27	16	16	8.6	6.8
28	26	841	93	321	69	88	62	26	16	16	8.5	6.5
29	24	509	98	264	---	82	55	25	15	15	8.3	6.3
30	67	340	104	220	---	77	54	28	15	15	8.0	6.1
31	120	---	98	370	---	76	---	48	---	14	7.8	---
TOTAL	798	7673	2995	4977	5346	4045	2302	1264	668	538	349.7	204.4
MEAN	25.7	256	96.6	161	191	130	76.7	40.8	22.3	17.4	11.3	6.81
MAX	120	841	249	416	590	277	110	83	44	44	14	8.5
MIN	13	34	57	52	69	65	54	25	15	12	7.8	6.0
AC-FT	1580	15220	5940	9870	10600	8020	4570	2510	1320	1070	694	405
CFSM	1.07	10.6	4.01	6.66	7.92	5.41	3.18	1.69	.92	.72	.47	.28
IN.	1.23	11.84	4.62	7.68	8.25	6.24	3.55	1.95	1.03	.83	.54	.32

CAL YR 1986 TOTAL 44262.6 MEAN 121 MAX 2100 MIN 9.6 AC-FT 87790 CFSM 5.03 IN. 68.32
WTR YR 1987 TOTAL 31160.1 MEAN 85.4 MAX 841 MIN 6.0 AC-FT 61810 CFSM 3.54 IN. 48.10

14162100 BLUE RIVER LAKE NEAR BLUE RIVER, OR

LOCATION.--Lat 44°10'20", long 122°19'40", in SE 1/4 SE 1/4 sec.16, T.16 S., R.4 E., Lane County, Hydrologic Unit 17090004, in intake tower near left end of Blue River Dam on Blue River, 1.4 mi north of town of Blue River, and at mile 1.7.

DRAINAGE AREA.--87.3 mi^2.

PERIOD OF RECORD.--October 1968 to current year. Prior to October 1971, published as Blue River Reservoir near Blue River.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1968 by Corps of Engineers; storage began October 1968. Total capacity is 89,520 acre-ft at elevation 1,357 ft, maximum pool, and usable capacity is 85,550 acre-ft between elevations 1,180 ft, minimum flood control pool, and 1,357 ft, maximum pool. Reservoir used for flood control. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 85,680 acre-ft June 12, 13, 1977, elevation, 1,353.02 ft; minimum contents observed since first filling in 1968, 305 acre-ft Dec. 7, 1973, elevation, 1,125.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 75,590 acre-ft June 8, elevation, 1,342.12 ft; minimum contents, 3,630 acre-ft Dec. 4, elevation, 1,177.38 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,120	136	1,160	1,880	1,250	19,260
1,130	437	1,180	3,970	1,290	36,960
1,140	764	1,200	7,030	1,340	73,710
1,150	1,210	1,220	11,040	1,354	86,620

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1228.28	1221.07	1209.76	1184.11	1231.10	1283.89	1318.31	1335.07	1341.35	1321.16	1276.57	1233.09
2	1226.88	1222.47	1191.25	1182.30	1240.86	1284.66	1319.08	1335.50	1341.52	1319.85	1275.08	1231.85
3	1225.84	1222.58	1180.52	1180.77	1237.69	1285.71	1319.86	1336.08	1341.65	1318.53	1272.40	1230.60
4	1224.98	1219.68	1179.85	1180.08	1229.10	1287.03	1320.54	1336.52	1341.74	1317.21	1269.04	1229.33
5	1223.98	1215.69	1180.74	1179.72	1225.52	1288.64	1321.19	1336.91	1341.84	1316.05	1266.70	1228.04
6	1223.54	1211.86	1180.19	1179.60	1228.10	1290.40	1321.79	1337.25	1341.92	1315.02	1264.56	1226.71
7	1223.35	1210.87	1180.07	1180.45	1232.43	1291.84	1322.42	1337.54	1342.00	1313.73	1262.41	1225.36
8	1223.09	1209.90	1180.20	1179.67	1236.03	1293.05	1323.33	1337.81	1342.04	1312.46	1260.07	1224.69
9	1222.78	1211.12	1180.94	1179.58	1238.84	1294.23	1324.06	1338.04	1341.88	1311.15	1257.69	1224.36
10	1222.43	1208.75	1180.93	1179.88	1241.15	1295.35	1324.84	1338.25	1341.50	1309.86	1255.25	1224.02
11	1222.03	1201.95	1180.49	1179.85	1243.67	1296.60	1325.75	1338.43	1341.04	1308.54	1252.81	1223.69
12	1221.59	1193.72	1180.74	1180.54	1246.12	1299.49	1326.60	1338.75	1340.60	1307.21	1249.74	1223.36
13	1221.13	1186.40	1181.97	1180.41	1250.42	1302.77	1327.32	1338.98	1340.14	1305.62	1247.24	1223.04
14	1220.65	1184.92	1181.84	1179.87	1254.94	1304.43	1327.95	1339.17	1339.50	1303.85	1245.47	1222.72
15	1220.16	1182.44	1180.60	1179.85	1258.75	1304.79	1328.49	1339.34	1338.70	1302.05	1244.27	1222.44
16	1219.63	1181.57	1180.03	1182.91	1262.52	1305.14	1329.08	1339.48	1337.82	1300.48	1243.04	1221.28
17	1219.13	1187.57	1179.97	1186.57	1266.29	1306.39	1329.71	1339.61	1336.94	1299.10	1242.36	1219.20
18	1218.65	1186.60	1180.06	1189.57	1269.40	1307.71	1330.28	1339.72	1336.06	1298.26	1241.96	1217.05
19	1218.12	1187.60	1179.80	1192.19	1271.85	1308.75	1330.76	1339.82	1335.15	1297.18	1241.67	1214.85
20	1217.56	1187.53	1179.64	1194.46	1273.88	1309.48	1331.21	1339.92	1334.15	1295.88	1241.52	1212.57
21	1216.97	1192.17	1179.81	1196.58	1275.58	1309.99	1331.63	1340.00	1333.11	1294.47	1241.36	1210.22
22	1216.37	1195.31	1179.92	1198.72	1277.15	1310.30	1332.09	1340.08	1332.68	1293.14	1241.20	1207.75
23	1215.75	1187.44	1180.76	1201.49	1278.52	1311.18	1332.13	1340.15	1331.23	1291.91	1241.05	1206.42
24	1214.60	1190.62	1180.54	1210.81	1279.71	1312.30	1332.57	1340.24	1330.05	1290.66	1240.68	1206.00
25	1213.14	1188.06	1180.67	1220.32	1280.74	1313.27	1332.95	1340.34	1328.79	1289.02	1240.12	1205.58
26	1211.79	1183.00	1181.62	1217.74	1281.66	1314.08	1333.31	1340.42	1327.54	1287.35	1239.55	1205.21
27	1211.55	1219.19	1179.88	1207.77	1282.47	1314.88	1333.67	1340.49	1326.29	1285.94	1238.73	1204.82
28	1210.94	1244.06	1179.64	1205.15	1283.21	1315.66	1334.04	1340.56	1325.01	1283.88	1237.67	1204.40
29	1210.19	1241.80	1180.02	1203.45	---	1316.34	1334.35	1340.62	1323.75	1281.73	1236.57	1203.98
30	1212.58	1229.37	1180.51	1201.37	---	1316.97	1334.68	1340.76	1322.46	1279.79	1235.46	1203.54
31	1218.11	---	1179.70	1212.41	---	1317.60	---	1341.11	---	1278.25	1234.31	---
MAX	1228.28	1244.06	1209.76	1220.32	1283.21	1317.60	1334.68	1341.11	1342.04	1321.16	1276.57	1233.09
MIN	1210.19	1181.57	1179.64	1179.58	1225.52	1283.89	1318.31	1335.07	1322.46	1278.25	1234.31	1203.54
(†)	10610	13300	3930	9390	33210	55420	69100	74690	59140	30670	14600	7660
(‡)	-2760	+2690	-9370	+5460	+23920	+22210	+13680	+5590	-15550	-28470	-16070	-6940

CAL YR 1986 MAX 1350.58 MIN 1179.27 AC-FT‡ -100
WTR YR 1987 MAX 1342.04 MIN 1179.58 AC-FT‡ -5710

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14162200 BLUE RIVER AT BLUE RIVER, OR

LOCATION.--Lat 44°09'45", long 122°19'55", in NW 1/4 SE 1/4 sec.21, T.16 S., R.4 E., Lane County, Hydrologic Unit 17090004, on right bank 0.3 mi upstream from Simmonds Creek, 0.7 mi north of town of Blue River, 0.8 mi downstream from Blue River Dam, and at mile 0.9.

DRAINAGE AREA.--87.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,056.53 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Aug. 25, 1966, nonrecording gage at datum 0.80 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since October 1968 by Blue River Lake (station 14162100). No diversion upstream from station. Discharge not adjusted for storage or release from Blue River Lake as losses from reservoir at times exceed natural flow.

AVERAGE DISCHARGE.--21 years, 466 ft^3/s, 337,600 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,270 ft^3/s Feb. 23, 1968, gage height, 8.93 ft; minimum discharge, 0.80 ft^3/s Oct. 8, 10, 11, 1968; minimum daily, 3.7 ft^3/s Oct. 8, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,950 ft^3/s Nov. 22, gage height, 7.56 ft; minimum discharge, 27 ft^3/s Apr. 7, 8; minimum daily, 45 ft^3/s Apr. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	329	119	2740	740	910	62	52	56	52	538	494	186
2	296	119	1910	1050	1050	62	52	56	51	538	490	186
3	237	176	1030	1070	1940	62	52	57	51	538	489	184
4	204	407	463	929	2120	62	52	53	51	538	517	183
5	202	473	361	695	1200	63	52	51	51	536	606	181
6	141	462	372	549	399	64	52	51	49	531	586	179
7	105	460	317	414	116	65	50	51	49	530	521	179
8	105	456	278	402	117	65	45	51	78	529	516	104
9	105	458	232	336	121	65	51	52	150	529	510	59
10	105	708	241	285	133	63	52	52	231	528	505	59
11	105	838	246	285	101	60	56	52	258	525	498	59
12	104	818	230	285	60	62	57	52	258	525	590	59
13	103	661	265	324	63	279	57	52	258	521	477	59
14	103	403	429	356	66	769	57	52	327	521	346	58
15	103	395	403	291	66	897	57	52	397	517	245	58
16	103	333	322	139	68	620	57	52	420	526	242	138
17	103	703	271	62	70	328	57	52	420	529	129	226
18	103	958	253	64	72	331	57	52	418	527	59	224
19	103	1200	269	60	67	333	57	52	416	524	59	221
20	102	1360	242	58	60	331	56	52	468	519	59	219
21	102	2060	214	59	62	330	56	52	501	515	59	215
22	102	2670	223	59	58	330	59	52	432	509	59	212
23	102	2750	349	55	57	214	215	52	442	433	59	129
24	140	1800	380	60	57	121	56	52	526	430	94	54
25	167	1550	342	600	56	121	56	52	542	518	125	54
26	165	1740	447	2130	60	119	56	51	541	515	124	54
27	164	1040	504	2420	62	82	56	51	539	510	159	54
28	163	525	375	1540	62	52	56	51	538	505	190	54
29	163	2160	375	1120	---	52	56	51	538	501	190	54
30	165	2790	428	939	---	52	56	52	538	498	189	54
31	150	---	427	810	---	52	---	52	---	497	188	---
TOTAL	4444	30592	14938	18186	9273	6168	1800	1618	9590	16000	9374	3755
MEAN	143	1020	482	587	331	199	60.0	52.2	320	516	302	125
MAX	329	2790	2740	2420	2120	897	215	57	542	538	606	226
MIN	102	119	214	55	56	52	45	51	49	430	59	54
AC-FT	8810	60680	29630	36070	18390	12230	3570	3210	19020	31740	18590	7450

CAL YR 1986 TOTAL 166701 MEAN 457 MAX 3490 MIN 46 AC-FT 330700
WTR YR 1987 TOTAL 125738 MEAN 344 MAX 2790 MIN 45 AC-FT 249400

14162200 BLUE RIVER AT BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1966 to current year.

INSTRUMENTATION.--Temperature recorder since August 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.0°C July 6, 1968; minimum, 0.0°C Jan. 5-9, 1974, Dec. 23, 24, 1983.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 21.0°C Aug. 17, 24; minimum, 2.5°C many days in January.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.5	11.5	11.5	10.5	10.0	10.5	6.5	6.0	6.5	5.5	5.0	5.0
2	12.0	11.5	11.5	10.5	10.0	10.0	6.5	6.0	6.0	5.5	5.0	5.5
3	11.5	11.5	11.5	10.0	9.5	9.5	6.0	5.5	5.5	5.5	5.5	5.5
4	12.0	11.5	11.5	10.0	9.5	9.5	5.5	5.0	5.5	6.0	5.5	6.0
5	12.0	11.5	12.0	10.0	9.5	9.5	5.5	5.5	5.5	6.0	5.5	6.0
6	12.5	11.5	12.0	10.0	10.0	10.0	6.0	5.5	6.0	5.5	5.0	5.5
7	12.5	11.5	12.0	10.0	9.5	10.0	6.0	5.5	6.0	5.0	4.5	4.5
8	12.5	12.0	12.0	9.5	9.0	9.0	5.5	5.0	5.5	4.0	3.5	3.5
9	12.5	12.0	12.0	9.0	8.5	9.0	5.0	4.5	4.5	3.0	2.5	3.0
10	12.5	12.0	12.0	9.0	8.5	8.5	4.5	3.5	4.0	3.0	2.5	2.5
11	12.5	12.0	12.0	8.5	8.0	8.5	3.5	3.5	3.5	3.0	2.5	3.0
12	12.5	12.0	12.0	8.5	8.0	8.5	3.5	3.5	3.5	3.5	3.0	3.0
13	12.5	12.0	12.0	8.5	7.5	8.0	4.0	3.5	3.5	3.5	3.5	3.5
14	12.5	12.0	12.0	8.0	7.5	8.0	5.0	4.0	4.5	4.0	3.5	4.0
15	12.5	12.0	12.0	8.0	7.5	8.0	5.0	5.0	5.0	4.0	3.0	3.5
16	12.0	12.0	12.0	8.0	7.5	8.0	5.0	5.0	5.0	3.0	2.5	3.0
17	12.0	12.0	12.0	7.5	7.5	7.5	5.0	4.5	4.5	3.5	3.0	3.0
18	12.5	12.0	12.0	7.5	7.5	7.5	4.0	4.0	4.0	3.0	3.0	3.0
19	12.0	11.5	12.0	7.5	7.5	7.5	4.0	4.0	4.0	3.5	2.5	3.0
20	12.0	11.5	12.0	8.0	7.5	7.5	4.0	4.0	4.0	3.0	2.5	3.0
21	12.5	12.0	12.0	8.0	7.0	7.5	4.5	4.0	4.5	3.0	2.5	2.5
22	12.5	11.5	12.0	7.5	7.0	7.0	5.0	4.5	4.5	3.0	2.5	2.5
23	12.0	11.5	12.0	7.5	7.0	7.0	5.5	4.5	5.0	3.0	2.5	3.0
24	12.0	11.5	12.0	7.5	7.0	7.5	6.0	5.5	5.5	3.5	3.0	3.0
25	12.0	12.0	12.0	7.0	6.0	7.0	5.5	5.5	5.5	3.5	3.0	3.5
26	12.0	12.0	12.0	7.0	6.0	6.5	5.5	5.5	5.5	5.0	3.5	4.0
27	12.5	12.0	12.0	7.5	7.0	7.5	5.5	5.5	5.5	5.5	5.0	5.5
28	12.5	12.0	12.0	7.5	7.0	7.5	5.5	5.0	5.5	5.5	5.5	5.5
29	12.0	11.5	12.0	7.0	7.0	7.0	5.0	4.5	5.0	5.5	5.5	5.5
30	11.5	11.0	11.5	7.0	7.0	7.0	5.0	4.5	5.0	5.5	5.5	5.5
31	11.0	10.5	11.0	---	---	---	5.0	5.0	5.0	6.0	5.5	5.5
MONTH	12.5	10.5	12.0	10.5	6.0	8.0	6.5	3.5	5.0	6.0	2.5	4.0

14162200 BLUE RIVER AT BLUE RIVER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	5.5	6.0	5.0	5.5	7.5	6.0	6.5	7.0	6.0	6.5
2	5.5	5.5	5.5	5.5	5.0	5.5	7.0	6.0	6.0	6.5	6.0	6.5
3	---	---	---	5.5	5.5	5.5	6.5	6.0	6.0	8.0	6.0	6.5
4	6.0	6.0	6.0	6.0	5.0	5.5	7.0	6.0	6.0	8.0	6.0	6.5
5	6.0	6.0	6.0	5.5	5.5	5.5	6.5	6.0	6.0	8.5	6.0	7.0
6	6.0	5.5	6.0	6.0	5.0	5.5	6.5	6.0	6.0	8.0	6.5	7.0
7	6.0	5.5	5.5	6.5	5.0	5.5	7.5	6.0	6.5	8.0	6.5	7.0
8	6.0	5.5	5.5	5.5	5.5	5.5	7.0	6.0	6.5	8.0	6.5	7.0
9	6.0	5.5	5.5	5.5	5.5	5.5	7.0	6.0	6.0	8.5	6.5	7.0
10	6.0	5.5	5.5	6.0	5.5	5.5	6.5	6.0	6.0	8.5	6.5	7.0
11	6.0	5.5	5.5	5.5	5.5	5.5	6.5	6.0	6.0	8.0	6.5	7.0
12	6.5	5.5	5.5	6.0	5.5	5.5	7.5	6.0	6.5	7.0	6.5	6.5
13	6.0	5.5	6.0	6.0	5.5	5.5	7.5	6.0	6.5	8.0	6.5	7.0
14	6.0	5.5	6.0	5.5	5.5	5.5	7.5	6.0	6.5	7.5	6.5	6.5
15	6.0	6.0	6.0	6.0	5.5	5.5	7.5	6.0	6.5	7.5	6.5	6.5
16	6.0	5.5	6.0	6.0	5.5	5.5	7.5	6.0	6.5	8.0	6.0	6.5
17	6.5	6.0	6.0	5.5	5.5	5.5	6.5	6.0	6.0	8.0	6.0	6.5
18	6.5	6.0	6.0	6.0	5.5	5.5	6.5	6.0	6.0	8.0	6.0	6.5
19	6.5	5.5	6.0	6.0	5.5	6.0	7.0	6.0	6.0	7.5	6.0	6.5
20	6.5	5.5	6.0	6.0	5.5	5.5	7.5	6.0	6.5	8.0	6.0	6.5
21	6.0	5.5	6.0	6.0	5.5	6.0	7.5	6.0	6.5	8.0	6.0	7.0
22	6.0	5.5	6.0	6.0	5.5	6.0	7.5	6.0	6.5	8.0	6.0	7.0
23	6.5	5.5	6.0	6.0	6.0	6.0	6.5	6.0	6.0	8.0	6.0	7.0
24	6.5	5.5	6.0	6.5	5.5	6.0	7.5	6.0	6.5	7.0	6.5	6.5
25	6.5	5.5	6.0	6.5	5.5	6.0	7.5	6.0	6.5	7.0	6.5	6.5
26	6.5	5.5	6.0	6.5	5.5	6.0	8.0	6.0	6.5	6.5	6.5	6.5
27	6.5	5.5	5.5	7.0	5.5	6.0	8.0	6.0	6.5	7.0	6.5	6.5
28	6.0	5.5	5.5	7.0	5.5	6.0	7.0	6.0	6.5	7.5	6.5	6.5
29	---	---	---	7.0	5.5	6.0	7.5	6.0	6.5	8.0	6.5	7.0
30	---	---	---	7.0	5.5	6.0	7.0	6.0	6.5	6.5	6.5	6.5
31	---	---	---	7.5	5.5	6.0	---	---	---	7.0	6.5	6.5
MONTH	---	---	---	7.5	5.0	5.5	8.0	6.0	6.5	8.5	6.0	6.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.0	6.5	7.0	7.5	7.0	7.0	16.0	15.5	15.5			
2	8.0	6.0	7.0	7.5	7.0	7.0	16.5	16.0	16.0			
3	8.5	6.5	7.0	7.5	7.0	7.5	16.5	16.0	16.5			
4	8.5	6.5	7.0	7.5	7.0	7.5	17.0	16.5	17.0			
5	7.5	6.5	6.5	7.5	7.0	7.5	17.5	17.0	17.5			
6	8.5	6.5	7.0	7.5	7.5	7.5	18.0	17.5	17.5			
7	8.5	6.5	7.0	8.0	7.5	7.5	18.5	18.0	18.0			
8	7.5	6.5	6.5	8.0	7.5	8.0	18.5	18.0	18.5			
9	7.0	6.5	6.5	8.0	7.5	8.0	19.0	18.5	19.0			
10	7.0	6.5	6.5	8.5	8.0	8.0	19.5	19.0	19.0			
11	7.0	6.5	6.5	8.5	8.0	8.5	19.5	19.0	19.5			
12	7.0	6.5	6.5	9.0	8.5	8.5	20.0	19.5	19.5			
13	7.0	6.5	6.5	9.0	8.5	9.0	20.0	20.0	20.0			
14	7.0	6.5	6.5	9.5	8.5	9.0	20.0	20.0	20.0			
15	6.5	6.5	6.5	9.5	9.0	9.5	20.0	20.0	20.0			
16	6.5	6.5	6.5	9.5	9.0	9.5	20.5	20.0	20.0			
17	6.5	6.5	6.5	10.0	9.5	9.5	21.0	19.5	20.0			
18	7.0	6.5	6.5	10.0	10.0	10.0	20.5	19.5	19.5			
19	7.0	6.5	6.5	10.5	10.0	10.5	20.5	19.5	19.5			
20	6.5	6.5	6.5	11.0	10.5	10.5	20.5	19.0	19.5			
21	6.5	6.5	6.5	11.5	11.0	11.0	20.5	19.0	19.5			
22	7.0	6.5	6.5	11.5	11.0	11.5	20.0	19.0	19.5			
23	7.0	6.5	6.5	12.0	11.5	12.0	20.5	19.0	19.5			
24	7.0	6.5	6.5	12.5	12.0	12.0	21.0	19.5	20.0			
25	7.0	6.5	7.0	12.5	12.5	12.5	---	---	---			
26	7.0	6.5	7.0	13.0	12.5	13.0	---	---	---			
27	7.0	6.5	7.0	13.5	13.0	13.5	---	---	---			
28	7.0	6.5	7.0	14.0	13.5	14.0	---	---	---			
29	7.0	7.0	7.0	14.5	14.0	14.5	---	---	---			
30	7.5	7.0	7.0	15.0	14.5	15.0	---	---	---			
31	---	---	---	15.5	15.0	15.0	---	---	---			
MONTH	8.5	6.0	6.5	15.5	7.0	10.0	---	---	---			

14162500 MCKENZIE RIVER NEAR VIDA, OR

LOCATION.--Lat 44°07'30", long 122°28'10", in NE 1/4 NE 1/4 sec.5, T.17 S., R.3 E., Lane County, Hydrologic Unit 17090004, on right bank 0.4 mi downstream from Mason Creek, 5.4 mi east of Vida, and at mile 47.7.

DRAINAGE AREA.--930 mi^2 at cableway 0.4 mi downstream, where all discharge measurement are made.

PERIOD OF RECORD.--July 1910 to March 1911 (published as "at Martins Rapids, near Vida"), September 1924 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 855.71 ft above National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). July 1, 1910, to Mar. 31, 1911, nonrecording gage at site 3 mi downstream at different datum. Sept. 1, 1924, to Nov. 16, 1928, nonrecording gage at site 20 ft upstream at datum 0.15 ft lower. Nov. 17, 1928, to Sept. 23, 1968, water-stage recorder at present site on left bank at datum 0.15 ft lower.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since 1963 by Smith River Reservoir (station 14158795) and Cougar Lake (station 14159400), and since 1968 by Blue River Lake (station 14162100). No diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--63 years (water years 1925-87), 4,051 ft^3/s, 2,935,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,400 ft^3/s Dec. 28, 1945, gage height, 17.70 ft, site and datum then in use, from rating curve extended above 32,000 ft^3/s; minimum discharge, 1,260 ft^3/s Nov. 7, 1930, Sept. 17, Oct. 4, 8, 9, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1923 reached a stage of 17.2 ft, from floodmarks, discharge, 62,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,800 ft^3/s Nov. 27, gage height, 5.73 ft; minimum discharge, 1,770 ft^3/s Sept. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3460	3030	11200	5130	9270	2820	2830	3000	2510	2550	2450	1940
2	3260	2770	9560	6360	8900	2820	2920	2920	2370	2550	2430	1930
3	3140	2680	7050	6100	8020	2880	2980	2970	2300	2540	2400	1920
4	3040	3050	6180	5750	7400	2940	3010	2860	2260	2530	2420	1920
5	3010	3590	5640	5220	6030	3080	2910	2800	2280	2520	2460	1920
6	2920	3650	5160	4760	4920	3320	2920	2790	2250	2520	2430	1920
7	2850	4100	4960	4270	4360	3180	2880	2820	2220	2500	2360	1910
8	2820	4100	4630	3840	4190	3010	3130	2800	2230	2480	2380	1950
9	2820	4410	4290	3590	4100	3070	2990	2780	2320	2480	2380	2190
10	2820	4460	4150	3360	3950	3010	3020	2680	2440	2480	2360	2140
11	2770	3920	4040	3300	4030	3090	3300	2610	2460	2460	2390	2210
12	2760	3910	4050	3390	3830	3670	3260	2700	2450	2450	2470	2230
13	2760	3970	4170	3340	4610	4630	3100	2790	2450	2430	2400	2230
14	2760	3930	4590	3360	5140	5400	3050	2610	2480	2410	2230	2000
15	2760	3990	4160	3280	4890	5300	3030	2520	2580	2410	2090	1800
16	2730	3890	3660	2940	4540	4620	3030	2470	2610	2420	2080	1840
17	2750	4830	3420	2690	4280	4200	3080	2440	2560	2450	1960	1960
18	2800	4860	3230	2630	4230	4370	3100	2420	2570	3130	1860	1960
19	2780	5800	3240	2590	3860	4290	2950	2340	2560	2960	1850	1940
20	2740	6240	3140	2560	3590	4050	2850	2310	2570	2640	1840	1920
21	2730	9650	2960	2480	3490	3850	2840	2310	2660	2560	1820	1920
22	2740	11100	3000	2410	3390	3780	2880	2290	2600	3060	1820	1920
23	2750	10100	3390	2460	3370	3800	3050	2240	2530	2800	1820	2020
24	2780	8890	3380	3130	3270	3650	2910	2260	2610	2600	1820	2170
25	2840	8180	3300	4990	3130	3450	2900	2430	2610	2650	1870	2190
26	2920	9290	3630	8500	2990	3310	2830	2360	2580	2590	1890	2220
27	2960	11400	3650	8510	2920	3200	2860	2330	2560	2570	1910	2230
28	2540	11100	3410	7600	2860	3080	2950	2300	2570	2550	1940	2230
29	2480	10800	3580	6460	---	2960	2930	2270	2570	2510	1940	2210
30	2960	11600	3870	5830	---	2850	2940	2240	2550	2490	1940	2210
31	3340	---	3640	6920	---	2820	---	2500	---	2480	1940	---
TOTAL	88790	183290	138330	137750	129560	110500	89430	79160	74310	79770	65950	61150
MEAN	2864	6110	4462	4444	4627	3565	2981	2554	2477	2573	2127	2038
MAX	3460	11600	11200	8510	9270	5400	3300	3000	2660	3130	2470	2230
MIN	2480	2680	2980	2410	2860	2820	2830	2240	2220	2410	1820	1800
AC-FT	176100	363600	274400	273200	257000	219200	177400	157000	147400	158200	130800	121300

CAL YR 1986 TOTAL 1559990 MEAN 4274 MAX 23600 MIN 2100 AC-FT 3094000
WTR YR 1987 TOTAL 1237990 MEAN 3392 MAX 11600 MIN 1800 AC-FT 2456000

14163000 GATE CREEK AT VIDA, OR

LOCATION.--Lat 44°08'45", long 122°34'15", in SW 1/4 sec.28, T.16 S., R.2 E., Lane County, Hydrologic Unit 17090004, on right bank 300 ft downstream from bridge on State Highway 126, at Vida, and at mile 0.2.

DRAINAGE AREA.--47.6 mi^2.

PERIOD OF RECORD.--June 1951 to September 1957; annual maximums, water years 1958-65; August 1966 to current year.

REVISED RECORDS.--WDR OR-83-2: 1976(M,P), 1978(M,P), 1979(M,P), 1980(M), 1981(M,P), 1982(M,P).

GAGE.--Water-stage recorder. Datum of gage is 764.56 ft above National Geodetic Vertical Datum of 1929. June 11, 1951, to Sept. 30, 1957, water-stage recorder, and Oct. 1, 1957, to Aug. 1, 1966, crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--27 years (water years 1952-57, 1967-87), 212 ft^3/s, 60.48 in/yr, 153,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,140 ft^3/s Dec. 22, 1964, gage height, 12.18 ft, from slope-area measurement of peak flow; minimum discharge, 12 ft^3/s Nov. 26, 27, 1952, Sept. 6, 7, 23, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	0330	*2,380	*6.83	Nov. 28	0800	1,870	6.16

Minimum discharge, 12 ft^3/s Sept. 6, 7, 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	154	398	442	1180	192	150	79	68	22	25	13
2	73	103	321	536	1130	190	140	90	53	22	24	13
3	64	81	267	417	744	187	135	98	47	22	23	13
4	57	68	231	353	548	179	128	83	44	23	22	13
5	52	62	204	292	440	180	122	75	43	24	21	13
6	48	61	181	250	378	189	118	70	42	23	21	12
7	45	223	163	217	332	183	116	66	40	21	21	12
8	43	192	149	194	298	172	135	63	40	21	19	13
9	41	245	138	175	273	172	116	61	38	21	19	13
10	39	229	128	162	251	165	123	58	36	23	19	13
11	37	162	124	151	239	173	150	57	34	21	20	14
12	36	129	134	162	227	248	164	74	33	19	19	15
13	34	110	156	183	307	332	142	70	32	18	19	16
14	33	126	191	205	398	433	126	62	32	17	21	16
15	33	105	155	187	345	398	115	59	33	16	20	20
16	32	114	137	164	376	313	108	57	34	16	19	17
17	34	307	125	150	430	305	110	55	32	20	18	15
18	39	292	124	140	446	344	119	54	30	170	17	14
19	33	376	135	131	389	351	113	51	29	137	17	14
20	31	421	121	124	334	313	106	50	29	67	16	13
21	30	990	114	119	298	278	100	49	43	50	16	13
22	29	1600	114	118	284	244	96	47	35	53	16	13
23	29	914	167	135	285	316	91	47	30	46	16	12
24	29	603	167	293	271	345	86	48	28	39	15	13
25	29	450	158	483	248	290	83	54	26	35	15	14
26	37	474	216	624	228	248	80	49	25	33	15	17
27	84	1240	194	536	212	221	76	47	24	32	14	15
28	65	1590	168	513	202	200	74	45	23	30	14	14
29	53	881	172	434	---	183	72	44	23	28	14	13
30	132	548	186	366	---	170	72	48	22	27	13	13
31	243	---	173	795	---	160	---	74	---	26	13	---
TOTAL	1650	12850	5411	9051	11093	7674	3366	1884	1048	1122	561	419
MEAN	53.2	428	175	292	396	248	112	60.8	34.9	36.2	18.1	14.0
MAX	243	1600	398	795	1180	433	164	98	68	170	25	20
MIN	29	61	114	118	202	160	72	44	22	16	13	12
AC-FT	3270	25490	10730	17950	22000	15220	6680	3740	2080	2230	1110	831
CFSM	1.12	9.00	3.67	6.13	8.32	5.20	2.36	1.28	.73	.76	.38	.29
IN.	1.29	10.04	4.23	7.07	8.67	6.00	2.63	1.47	.82	.88	.44	.33

CAL YR 1986 TOTAL 76478 MEAN 210 MAX 3330 MIN 13 AC-FT 151700 CFSM 4.40 IN. 59.77
WTR YR 1987 TOTAL 56129 MEAN 154 MAX 1600 MIN 12 AC-FT 111300 CFSM 3.23 IN. 43.87

14165000 MOHAWK RIVER NEAR SPRINGFIELD, OR

LOCATION.--Lat 44°05'34", long 122°57'20", in SE 1/4 NW 1/4 sec.17, T.17 S., R.2 W., Lane County, Hydrologic Unit 17090004, on left bank 50 ft downstream from bridge, 1.3 mi northeast of Springfield, and at mile 1.59.

DRAINAGE AREA.--177 mi^2.

PERIOD OF RECORD.--September 1935 to September 1952, October 1963 to current year. Prior to October 1935 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1939. WSP 1738: Drainage area. WDR OR-86-2: 1985(m).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 442.47 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1935, to Sept. 30, 1952, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 22-26, 29, 30; Dec. 1, 2; Jan. 7, 26, 27. Records good. Many diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--41 years, 536 ft^3/s, 41.12 in/yr, 388,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s Dec. 22, 1964, gage height, 22.60 ft; minimum discharge, 8.2 ft^3/s Sept. 9, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached at stage of 22.9 ft, from floodmark, probably affected by backwater from McKenzie River, discharge, 9,200 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	0900	4,090	10.98	Feb. 2	0800	3,810	10.52
Nov. 28	1200	*5,910	*13.80				

Minimum daily discharge, 14 ft^3/s Sept. 2, 3, 7, 9, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	171	1530	1220	3170	446	385	239	143	38	36	15
2	75	123	1150	1970	3480	438	358	268	112	38	35	14
3	66	102	891	1540	2510	421	338	258	99	39	33	14
4	59	87	734	1350	1910	394	322	221	91	42	30	15
5	55	79	625	1160	1500	390	310	203	88	45	29	16
6	52	75	540	1190	1220	456	319	189	90	44	28	15
7	48	147	464	994	1050	416	342	175	84	39	27	14
8	45	156	408	852	895	385	360	162	82	38	27	15
9	44	176	374	742	795	396	312	149	79	39	25	14
10	43	220	343	658	711	410	340	143	75	40	26	14
11	42	167	325	595	675	466	464	138	72	39	30	15
12	40	137	394	631	598	752	466	166	69	35	30	20
13	38	123	429	717	782	986	405	177	65	30	28	22
14	37	190	536	755	1000	1260	363	148	63	28	33	22
15	37	174	461	695	856	1310	331	142	64	25	35	27
16	37	162	404	633	827	1050	303	139	69	23	31	30
17	42	285	365	572	862	952	299	130	66	28	25	25
18	68	313	345	531	924	977	333	130	62	172	23	23
19	57	478	377	488	834	946	299	123	58	297	22	21
20	48	652	334	449	762	850	273	121	56	112	21	19
21	44	1890	315	423	729	767	259	116	66	73	19	19
22	42	3210	332	396	673	684	247	110	70	64	20	19
23	40	2080	539	443	721	815	237	109	62	64	21	18
24	41	1510	551	666	665	743	223	111	55	56	21	17
25	43	1130	513	1130	604	665	214	119	51	53	19	19
26	46	1300	689	1690	552	616	209	118	47	50	19	23
27	74	3400	619	1620	512	562	198	113	45	48	18	26
28	91	5440	545	1640	476	518	191	109	42	46	17	23
29	69	3280	593	1410	---	480	190	103	41	42	17	20
30	112	2150	636	1220	---	445	191	101	40	39	16	17
31	241	---	591	1650	---	410	---	137	---	38	16	---
TOTAL	1865	29407	16952	30030	30293	20406	9081	4667	2106	1764	777	571
MEAN	60.2	980	547	969	1082	658	303	151	70.2	56.9	25.1	19.0
MAX	241	5440	1530	1970	3480	1310	466	268	143	297	36	30
MIN	37	75	315	396	476	385	190	101	40	23	16	14
AC-FT	3700	58330	33620	59560	60090	40480	18010	9260	4180	3500	1540	1130
CFSM	.34	5.54	3.09	5.47	6.11	3.72	1.71	.85	.40	.32	.14	.11
IN.	.39	6.18	3.56	6.31	6.37	4.29	1.91	.98	.44	.37	.16	.12

CAL YR 1986 TOTAL 196217 MEAN 538 MAX 8400 MIN 18 AC-FT 389200 CFSM 3.04 IN. 41.24
WTR YR 1987 TOTAL 147919 MEAN 405 MAX 5440 MIN 14 AC-FT 293400 CFSM 2.29 IN. 31.09

14166000 WILLAMETTE RIVER AT HARRISBURG, OR

LOCATION.--Lat 44°16'14", long 123°10'21", in NW 1/4 NE 1/4 sec.16, T.15 S., R.4 W., Linn County, Hydrologic Unit 17090003, on right bank 75 ft north of intersection of First Street and Kesling Street in Harrisburg and at mile 161.0.

DRAINAGE AREA.--3,420 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year. Gage-height records collected at same site in 1927-28, 1931, 1934, are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 288.39 ft above National Geodetic Vertical Datum of 1929. Oct 1 to Nov. 14, 1944, nonrecording gage at bridge 1,110 ft upstream at different datum. Nov. 15, 1944, to Aug. 15, 1973, at site 1,100 ft upstream at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Sept. 29, 30. Water-discharge records good. Flow regulated by 8 reservoirs upstream from station. Many small diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--43 years, 12,150 ft^3/s, 8,803,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210,000 ft^3/s Dec. 29, 1945, gage height, 19.69 ft, from rating curve extended above 115,000 ft^3/s; minimum discharge, 1,990 ft^3/s Oct. 30, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of 20.5 ft was reached in December 1861, and 20.1 ft in February 1890 (information from Corps of Engineers). Flood of Jan. 1, 1943, reached a stage of 19.1 ft from National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43,400 ft^3/s Nov. 28, gage height, 11.17 ft; minimum discharge, 3,430 ft^3/s May 23, June 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10900	10100	40900	10600	28400	5960	5310	4720	4040	3700	3740	4680
2	9980	9400	37400	21000	35600	5850	5250	4810	3870	3740	3720	4650
3	9130	8970	28800	23200	31200	5800	5240	4760	3690	3770	3680	4800
4	8290	8840	23400	19800	30200	5770	5280	4670	3540	3850	3630	4800
5	8140	9230	19700	17600	25800	5750	5230	4590	3520	3760	3650	4780
6	8050	9350	18200	16000	18500	5890	5210	4440	3490	3720	3760	4740
7	7730	9850	17400	14100	13400	5830	5190	4340	3510	3650	3800	4770
8	7620	10700	15700	12600	11800	5600	5270	4250	3470	3620	3750	4730
9	7600	11000	11100	10700	11300	5760	5390	4210	3440	3760	3750	4710
10	7590	12900	10300	9160	9910	7170	5180	4210	3540	3780	3750	4680
11	7440	13100	9650	8430	8220	7220	5740	4090	3630	3730	3800	4680
12	7580	11800	10000	8330	7480	7960	6040	4010	3580	3690	3870	4790
13	7720	11100	9770	8610	8040	8400	5810	4230	3540	3660	3850	4810
14	7850	11000	11500	7830	12500	9860	5430	4070	3530	3640	4170	4820
15	7700	11800	11200	7990	12500	11500	5260	4000	3610	3670	4460	4870
16	7630	12100	10100	7750	12000	10100	5140	3890	3750	3690	4410	4870
17	7800	12000	9810	6620	11600	9810	5110	3800	3770	3800	4540	4870
18	8120	13400	9040	6200	10400	9160	5240	3740	3700	4430	4510	4870
19	8110	14500	8460	6020	9730	10100	5170	3720	3670	5670	4620	4870
20	8020	15900	7960	5840	8910	9770	4970	3630	3670	4400	4620	4890
21	8100	24700	7660	5550	8210	8950	4860	3600	3820	3970	4620	4900
22	8250	34100	7480	5300	7920	8200	4820	3570	3940	3990	4590	4920
23	7600	34400	7510	5320	7960	8470	4790	3500	3730	4210	4640	4920
24	8170	30900	7030	6000	7560	8490	4890	3520	3630	3840	4660	5100
25	8060	28300	7060	9910	7130	7880	4710	3650	3720	3850	4670	5140
26	8030	28200	7650	22000	6700	7410	4660	3810	3720	4020	4680	5150
27	8320	34200	8130	28400	6360	6990	4550	3720	3670	3980	4760	5130
28	8120	42300	7720	28700	6150	6500	4560	3690	3660	3890	4820	5120
29	7770	35900	7410	25100	---	6210	4580	3650	3620	3750	4820	5100
30	8260	38900	8770	22300	---	5940	4610	3640	3660	3730	4720	5100
31	9780	---	9230	19600	---	5560	---	3740	---	3760	4670	---
TOTAL	253460	558940	406040	406560	375480	232860	153490	124270	109730	120720	131730	146260
MEAN	8176	18630	13100	13110	13410	7512	5116	4009	3658	3894	4249	4875
MAX	10900	42300	40900	28700	35600	11500	6040	4810	4040	5670	4820	5150
MIN	7440	8840	7030	5300	6150	5560	4550	3500	3440	3620	3630	4650
AC-FT	502700	1109000	805400	806400	744800	461900	304400	246500	217600	239400	261300	290100

CAL YR 1986 TOTAL 4208090 MEAN 11530 MAX 64000 MIN 3940 AC-FT 8347000
WTR YR 1987 TOTAL 3019540 MEAN 8273 MAX 42300 MIN 3440 AC-FT 5989000

14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 24.0°C Aug. 12, 1973; minimum, 0.0°C Jan. 8, 9, 1973.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 21.0°C Aug. 31; minimum recorded, 6.0°C Dec. 17, 18.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	12.5	13.0	12.5	12.0	12.0	---	---	---			
2	13.0	12.0	13.0	12.5	12.0	12.0	---	---	---			
3	13.5	12.5	13.0	12.0	11.5	12.0	---	---	---			
4	14.0	13.0	13.5	12.0	11.5	11.5	---	---	---			
5	14.5	13.0	13.5	12.0	11.5	11.5	---	---	---			
6	15.0	13.5	14.0	11.5	11.0	11.5	---	---	---			
7	15.0	13.5	14.5	12.0	11.0	11.5	---	---	---			
8	14.5	13.5	14.0	11.5	10.5	11.0	---	---	---			
9	14.5	13.0	13.5	11.0	10.5	10.5	---	---	---			
10	13.5	13.0	13.0	10.0	---	10.0	---	---	---			
11	13.5	12.5	13.0	---	---	---	6.5	---	---			
12	13.0	12.0	13.0	---	---	---	7.0	6.5	6.5			
13	13.0	12.0	12.5	---	---	---	7.5	7.0	7.5			
14	13.0	12.0	12.5	---	---	---	8.0	7.5	7.5			
15	13.0	12.0	12.5	---	---	---	7.5	7.0	7.5			
16	13.0	12.5	13.0	---	---	---	7.0	6.5	7.0			
17	12.5	12.5	12.5	---	---	---	6.5	6.0	6.5			
18	13.0	12.5	13.0	---	---	---	6.5	6.0	6.0			
19	13.0	12.5	12.5	---	---	---	7.0	6.5	6.5			
20	13.5	12.5	13.0	---	---	---	7.0	6.5	7.0			
21	13.5	12.5	13.0	---	---	---	7.5	7.0	7.0			
22	12.5	12.5	12.5	---	---	---	7.5	7.0	7.5			
23	13.0	12.5	12.5	---	---	---	8.0	7.5	8.0			
24	13.0	12.5	13.0	---	---	---	8.0	7.5	7.5			
25	13.5	13.0	13.0	---	---	---	7.5	7.0	7.0			
26	13.5	13.5	13.5	---	---	---	---	7.0	---			
27	13.5	13.5	13.5	---	---	---	---	---	---			
28	13.5	12.5	13.0	---	---	---	---	---	---			
29	13.0	12.0	12.5	---	---	---	---	---	---			
30	13.0	12.0	12.5	---	---	---	---	---	---			
31	13.0	12.0	12.5	---	---	---	---	---	---			
MONTH	15.0	12.0	13.0	---	---	---	---	---	---			

14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	12.5	11.0	11.5	13.0	12.0	12.5
2				---	---	---	13.0	11.0	12.0	12.0	11.0	11.5
3				---	---	---	12.5	11.0	11.5	14.0	11.0	12.0
4				---	---	---	11.5	10.5	11.0	14.5	13.0	14.0
5				---	---	---	10.5	10.0	10.5	15.5	13.5	14.5
6				---	---	---	11.0	9.5	10.5	18.0	15.0	16.0
7				---	---	---	12.0	10.5	11.0	18.5	16.5	17.5
8				---	---	---	13.0	11.0	12.0	19.0	17.0	18.0
9				---	---	---	12.5	11.0	11.5	19.0	17.5	18.0
10				---	---	---	11.5	10.5	11.0	---	16.5	---
11				---	---	---	10.5	9.5	10.0	---	---	---
12				9.0	---	---	11.5	9.0	10.5	---	---	---
13				9.5	8.5	9.0	12.0	10.0	11.0	---	---	---
14				8.5	8.5	8.5	13.0	10.5	12.0	---	---	---
15				9.0	7.5	8.0	14.0	12.0	13.0	---	---	---
16				9.0	8.0	8.5	13.5	12.5	13.0	---	---	---
17				9.5	8.0	9.0	13.0	11.5	12.5	---	---	---
18				9.0	8.0	8.5	11.5	10.5	11.0	---	---	---
19				8.5	7.5	8.0	11.0	9.5	10.0	---	---	---
20				8.5	8.0	8.0	12.0	10.0	11.0	---	---	---
21				9.5	8.0	8.5	13.5	11.0	12.5	---	---	---
22				9.5	8.0	8.5	14.0	12.0	13.0	---	---	---
23				10.0	8.5	9.0	14.5	13.0	13.5	---	---	---
24				10.0	8.5	9.0	14.0	12.5	13.5	---	---	---
25				9.5	8.5	9.0	13.5	12.0	13.0	---	---	---
26				10.0	8.0	9.0	15.0	12.0	13.5	---	---	---
27				10.0	8.0	9.0	16.0	13.5	14.5	---	---	---
28				10.0	8.0	9.0	15.5	14.5	15.0	---	---	---
29				10.0	8.5	9.5	15.0	13.5	14.5	---	---	---
30				11.0	9.0	10.0	14.5	13.5	14.0	---	---	---
31				11.5	10.0	11.0	---	---	---	---	---	---
MONTH				---	---	---	16.0	9.0	12.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1							---	---	---	20.5	19.5	20.0
2							---	---	---	19.5	18.5	19.0
3							---	---	---	18.5	17.5	18.0
4							---	---	---	19.0	17.5	18.0
5							---	---	---	19.5	18.0	18.5
6							---	---	---	19.5	18.5	19.0
7							---	---	---	19.0	18.0	18.5
8							---	---	---	19.0	18.0	18.5
9							---	---	---	19.0	18.0	18.5
10							---	---	---	---	18.0	---
11							---	---	---	---	---	---
12							---	---	---	---	---	---
13							---	---	---	---	---	---
14							---	---	---	---	---	---
15							---	---	---	---	---	---
16							---	---	---	---	---	---
17							---	---	---	---	---	---
18							---	---	---	---	---	---
19							---	---	---	---	---	---
20							---	---	---	---	---	---
21							---	---	---	---	---	---
22							---	---	---	---	---	---
23							---	---	---	---	---	---
24							---	---	---	---	---	---
25							---	---	---	---	---	---
26							20.0	---	---	---	---	---
27							20.0	18.5	19.0	---	---	---
28							20.0	18.5	19.5	---	---	---
29							19.5	18.5	19.0	---	---	---
30							20.0	18.5	19.5	---	---	---
31							21.0	19.5	20.0	---	---	---
MONTH							---	---	---	---	---	---

14166500 LONG TOM RIVER NEAR NOTI, OR

LOCATION.--Lat 44°03'00", long 123°25'30", in SE 1/4 NW 1/4 sec.33, T.17 S., R.6 W., Lane County, Hydrologic Unit 17090003, on left bank 0.2 mi upstream from Southern Pacific Railroad bridge, 0.8 mi downstream from Noti Creek, 1.3 mi southeast of Noti, and at mile 37.4.

DRAINAGE AREA.--89.3 mi^2.

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1318: 1936(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 389.05 ft above National Geodetic Vertical Datum of 1929 (levels by National Weather Service). Prior to Nov. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Slight regulation caused by logpond upstream from Noti. No diversion upstream from station.

AVERAGE DISCHARGE.--52 years, 233 ft^3/s, 35.43 in/yr, 168,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,990 ft^3/s Dec. 22, 1955, gage height, 20.17 ft; minimum discharge, 0.04 ft^3/s Aug. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0730	1,780	12.27	Feb. 2	1600	*2,340	*13.99

Minimum discharge, 5.6 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	90	383	389	1760	227	155	104	73	20	16	8.9
2	26	60	302	821	2190	227	148	103	55	20	15	7.9
3	23	46	253	755	1580	263	150	103	46	20	14	7.8
4	20	40	214	888	998	289	147	90	42	22	14	8.5
5	20	36	177	694	745	261	141	80	41	25	14	8.6
6	20	34	167	612	593	248	143	74	42	24	14	7.8
7	18	43	147	505	503	229	140	70	39	21	13	8.2
8	17	51	133	417	440	218	135	66	37	21	13	8.5
9	16	52	123	351	391	222	128	61	35	20	12	8.7
10	16	56	115	301	357	221	124	58	34	20	13	9.6
11	16	50	111	267	329	219	124	55	33	19	13	10
12	16	44	124	272	301	280	127	55	32	18	13	11
13	15	40	130	319	362	457	126	56	30	18	13	11
14	16	55	222	342	580	478	122	53	29	15	14	12
15	16	57	250	340	528	434	116	52	30	15	15	12
16	16	50	204	297	686	361	111	53	32	15	14	12
17	17	66	176	268	624	321	107	51	32	20	14	13
18	20	86	161	248	576	311	108	50	30	30	13	11
19	20	144	157	229	500	335	107	49	29	64	12	9.9
20	19	196	142	214	437	309	104	48	29	39	11	9.1
21	18	470	131	205	394	285	100	47	33	33	11	9.7
22	17	841	148	195	367	259	96	44	34	29	11	14
23	18	510	276	207	358	262	90	44	30	27	11	12
24	18	441	290	308	320	241	85	44	27	25	11	10
25	20	495	267	625	290	220	83	45	26	23	11	8.4
26	25	440	267	968	271	205	81	43	25	21	10	11
27	48	1210	234	835	253	184	78	43	23	21	10	9.2
28	40	1640	212	771	238	162	76	43	22	19	10	9.7
29	30	959	251	925	---	175	73	43	22	18	10	7.3
30	70	544	323	774	---	152	78	50	22	17	9.0	6.6
31	135	---	291	743	---	156	---	92	---	17	9.5	---
TOTAL	814	8846	6381	15085	16971	8231	3403	1869	1014	716	383.5	293.4
MEAN	26.3	295	206	487	606	266	113	60.3	33.8	23.1	12.4	9.78
MAX	135	1640	383	968	2190	478	155	104	73	64	16	14
MIN	15	34	111	195	238	152	73	43	22	15	9.0	6.6
AC-FT	1610	17550	12660	29920	33660	16330	6750	3710	2010	1420	761	582
CFSM	.29	3.30	2.31	5.45	6.79	2.97	1.27	.68	.38	.26	.14	.11
IN.	.34	3.69	2.66	6.28	7.07	3.43	1.42	.78	.42	.30	.16	.12

CAL YR 1986 TOTAL 78682.6 MEAN 216 MAX 3380 MIN 7.1 AC-FT 156100 CFSM 2.41 IN. 32.78
WTR YR 1987 TOTAL 64006.9 MEAN 175 MAX 2190 MIN 6.6 AC-FT 127000 CFSM 1.96 IN. 26.66

14167000 COYOTE CREEK NEAR CROW, OR

LOCATION.--Lat 44°01'19", long 123°15'17", in SW 1/4 NE 1/4 sec.11, T.18 S., R.5 W., Lane County, Hydrologic Unit 17090003, on right bank 1.0 mi downstream from Spencer Creek, 4.3 mi northeast of Crow, and at mile 3.8.

DRAINAGE AREA.--95.1 mi^2.

PERIOD OF RECORD.--July 1940 to September 1987 (discontinued).

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 374.0 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Aug. 31, 1940, nonrecording gage near same site at different datums.

REMARKS.--No estimated daily discharges. Records good. No regulation. Several small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--47 years, 176 ft^3/s, 25.13 in/yr, 127,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s Feb. 10, 1961, gage height, 14.43 ft, from rating curve extended above 4,700 ft^3/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 2	0930	*2,550	*11.23	No other peak greater than base discharge.			

No flow Aug. 20, Sept. 3-30

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	23	259	430	1260	97	62	26	8.1	.40	.57	.01
2	3.3	14	192	865	2150	93	56	31	3.8	.32	.46	.01
3	2.9	8.9	153	799	1300	98	57	30	13	.45	.29	.00
4	2.7	6.9	124	743	779	98	60	25	7.2	.34	.18	.00
5	2.6	5.7	104	544	481	91	54	21	6.0	.26	.11	.00
6	2.1	4.5	85	543	332	95	58	20	5.7	.21	.07	.00
7	1.9	4.4	71	392	265	79	52	18	4.8	.22	.05	.00
8	1.7	4.5	60	296	221	72	49	17	2.5	.20	.04	.00
9	1.6	5.9	53	236	191	85	45	14	1.9	.18	.04	.00
10	1.6	6.9	46	190	167	81	44	13	1.8	.18	.19	.00
11	1.7	8.9	43	164	159	96	67	12	1.8	.28	.13	.00
12	1.7	7.9	54	190	142	194	77	11	1.8	.23	.08	.00
13	1.6	6.7	66	250	258	286	61	12	1.8	.17	.06	.00
14	1.4	9.2	117	221	518	322	52	12	2.2	.17	.14	.00
15	1.6	16	101	191	465	297	47	11	2.1	.26	.11	.00
16	1.5	14	83	163	447	223	43	11	1.9	.42	.06	.00
17	1.3	12	71	144	379	185	41	11	2.1	.55	.04	.00
18	1.1	15	65	130	380	180	45	9.8	2.4	.76	.02	.00
19	1.1	29	74	120	297	189	43	9.3	2.4	1.6	.01	.00
20	1.3	70	68	110	247	155	38	9.0	1.5	6.4	.00	.00
21	1.8	202	54	99	244	136	34	8.6	1.6	5.7	.01	.00
22	3.0	374	106	92	226	118	31	8.3	1.5	3.8	.08	.00
23	2.5	281	325	110	206	174	31	7.7	1.4	2.9	.08	.00
24	1.9	196	263	222	176	147	28	7.5	1.5	2.5	.07	.00
25	1.9	212	209	576	151	120	26	7.7	1.4	1.9	.06	.00
26	1.9	218	219	901	135	106	25	8.4	1.1	1.7	.05	.00
27	2.0	735	179	804	119	94	24	8.7	.79	1.4	.05	.00
28	3.3	1430	148	735	106	85	22	8.2	.69	1.2	.04	.00
29	5.5	960	192	667	---	78	21	7.8	.53	1.1	.02	.00
30	6.8	456	251	529	---	71	21	7.7	.53	.88	.02	.00
31	17	---	210	568	---	66	---	9.0	---	.83	.02	---
TOTAL	85.8	5337.4	4045	12024	11801	4211	1314	412.7	85.84	37.51	3.15	0.02
MEAN	2.77	178	130	388	421	136	43.8	13.3	2.86	1.21	.10	.001
MAX	17	1430	325	901	2150	322	77	31	13	6.4	.57	.01
MIN	1.1	4.4	43	92	106	66	21	7.5	.53	.17	.00	.00
AC-FT	170	10590	8020	23850	23410	8350	2610	819	170	74	6.2	.04
CFSM	.03	1.87	1.37	4.08	4.43	1.43	.46	.14	.03	.01	.00	.00
IN.	.03	2.09	1.58	4.70	4.62	1.65	.51	.16	.03	.01	.00	.00

CAL YR 1986 TOTAL 58519.30 MEAN 160 MAX 3200 MIN .00 AC-FT 116100 CFSM 1.69 IN. 22.89
WTR YR 1987 TOTAL 39357.42 MEAN 108 MAX 2150 MIN .00 AC-FT 78070 CFSM 1.13 IN. 15.40

14168000 FERN RIDGE LAKE NEAR ELMIRA, OR

LOCATION.--Lat 44°07'15", long 123°18'00", near center of sec.4, T.17 S., R.5 W., Lane County, Hydrologic Unit 17090003, in control house at spillway section of dam across Long Tom River and Coyote Creek, 4.5 mi northeast of Elmira, and at mile 25.7.

DRAINAGE AREA.--252 mi^2, not including Amazon Creek basin (see REMARKS).

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1971, published as Fern Ridge Reservoir near Elmira.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earth-fill dam with concrete outlet and spillway, completed in 1941 by Corps of Engineers; storage began Nov. 13, 1941. Total capacity, 116,800 acre-ft at elevation 375.1 ft, maximum pool elevation. Usable capacity, 101,100 acre-ft between elevations 340.0 ft, sill of outlet gate, and 373.5 ft, normal maximum operating pool level. Reservoir used for flood control and improvement of navigation. Since November 1951, most of flow of Amazon Creek has been diverted in SE 1/4 sec.29, T.17 S., R.4 W., and discharged into Fern Ridge Lake; drainage area at point of diversion, 21.3 mi^2.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 124,500 acre-ft Dec. 27, 1955, elevation, 375.83 ft; minimum contents since first filling in 1942, 163 acre-ft Nov. 11, 1950, elevation, 344.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 82,260 acre-ft June 3, 4, elevation, 371.34 ft; minimum contents, 6,650 acre-ft Dec. 1, 2, elevation, 352.64 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

349	2,270	356	12,440	364	37,490	372	87,720
350	3,250	358	17,020	366	46,940	374	105,800
352	5,730	360	22,670	368	58,320	376	126,300
354	8,760	362	29,460	370	71,900		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370.81	362.59	352.84	353.89	359.97	365.05	369.92	371.08	371.33	370.84	370.35	369.46
2	370.73	362.10	352.95	353.88	361.94	365.24	369.98	371.11	371.32	370.80	370.33	369.40
3	370.64	361.59	353.27	353.81	362.46	365.40	370.04	371.13	371.33	370.78	370.31	369.39
4	370.55	361.05	353.39	353.63	361.90	365.58	370.09	371.16	371.32	370.75	370.29	369.36
5	370.47	360.48	353.37	353.59	360.86	365.74	370.16	371.18	371.31	370.73	370.25	369.35
6	370.34	360.00	353.38	354.03	360.17	365.90	370.22	371.19	371.31	370.71	370.23	369.31
7	370.14	359.39	353.49	353.54	360.11	366.02	370.27	371.26	371.31	370.68	370.21	369.28
8	369.90	358.73	353.49	353.24	360.10	366.17	370.31	371.23	371.30	370.66	370.19	369.25
9	369.66	358.09	353.43	353.28	360.01	366.31	370.35	371.22	371.28	370.65	370.15	369.23
10	369.39	357.38	353.34	353.07	359.88	366.45	370.41	371.22	371.27	370.61	370.13	369.20
11	369.15	356.61	353.30	352.81	360.01	366.63	370.47	371.22	371.26	370.59	370.10	369.18
12	368.90	355.78	353.28	353.04	360.38	366.98	370.52	371.23	371.24	370.57	370.08	369.16
13	368.64	354.97	353.46	353.48	361.05	367.33	370.57	371.25	371.23	370.54	370.05	369.14
14	368.38	354.14	353.68	353.48	361.89	367.66	370.61	371.25	371.21	370.51	370.03	369.12
15	368.12	353.86	353.62	353.27	362.67	367.86	370.65	371.26	371.19	370.46	370.00	369.11
16	367.85	353.80	353.35	353.61	363.26	368.00	370.67	371.26	371.17	370.48	369.95	369.07
17	367.60	353.68	352.94	354.12	363.59	368.16	370.72	371.25	371.15	370.46	369.93	369.05
18	367.32	353.70	352.74	354.50	363.77	368.35	370.77	371.24	371.13	370.58	369.89	369.04
19	367.06	353.58	352.84	354.78	363.82	368.56	370.80	371.24	371.13	370.61	369.86	369.02
20	366.74	353.67	352.90	355.07	363.83	368.73	370.82	371.24	371.11	370.61	369.82	369.00
21	366.43	354.06	352.88	355.36	363.85	368.87	370.84	371.23	371.08	370.60	369.79	368.98
22	366.11	354.50	353.29	355.64	363.83	369.01	370.87	371.23	371.06	370.50	369.75	368.97
23	365.79	353.34	353.47	356.00	363.92	369.19	370.89	371.23	371.05	370.58	369.73	368.93
24	365.46	353.10	353.33	356.79	364.15	369.32	370.90	371.23	371.02	370.55	369.70	368.91
25	365.13	353.02	353.27	357.95	364.35	369.42	370.91	371.23	371.00	370.52	369.68	368.89
26	364.84	353.19	353.40	358.26	364.56	369.52	370.93	371.23	370.98	370.50	369.64	368.86
27	364.48	355.37	353.27	358.12	364.74	369.59	370.94	371.24	370.95	370.47	369.61	368.84
28	364.09	356.82	352.97	358.17	364.91	369.65	370.96	371.24	370.93	370.45	369.58	368.81
29	363.79	356.25	353.15	358.32	---	369.74	370.98	371.23	370.91	370.43	369.55	368.79
30	363.45	353.79	353.29	358.29	---	369.80	371.03	371.30	370.89	370.40	369.51	368.77
31	363.03	---	352.93	358.54	---	369.86	---	371.32	---	370.34	369.49	---
MAX	370.81	362.59	353.68	358.54	364.91	369.86	371.03	371.32	371.33	370.84	370.35	369.46
MIN	363.03	353.02	352.74	352.81	359.88	365.05	369.92	371.08	370.89	370.34	369.49	368.77
(†)	33440	8410	7070	18440	41590	70870	79770	82100	78670	74440	68220	63280
(‡)	-45070	-25030	-1340	+11370	+23150	+29280	+8900	+2330	-3430	-4230	-6220	-4940

CAL YR 1986 MAX 373.08 MIN 352.74 AC-FT‡ -130
WTR YR 1987 MAX 371.33 MIN 352.74 AC-FT‡ -15230

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14169000 LONG TOM RIVER NEAR ALVADORE, OR

LOCATION.--Lat 44°07'25", long 123°17'55", in SW 1/4 NE 1/4 sec.4, T.17 S., R.5 W., Lane County, Hydrologic Unit 17090003, on left bank 0.2 mi downstream from Fern Ridge Dam, 1.7 mi west of Alvadore, and at mile 25.5.

DRAINAGE AREA.--252 mi^2, not including Amazon Creek basin.

PERIOD OF RECORD.--August 1939 to current year. Prior to October 1943, published as "at Smithfield," and October 1943 to September 1959, as "below Fern Ridge Dam, near Smithfield." Prior to October 1985, published figures included diversion from Fern Ridge Reservoir into Coyote Creek channel (station 14169001).

REVISED RECORDS.--WSP 1248: 1940-41, 1948.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 332.00 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 21, 1939, nonrecording gage and Sept. 21, 1939, to Sept. 30, 1943, water-stage recorder at site 2.5 mi downstream at datum 11.09 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1941 by Fern Ridge Lake (station 14168000). Several small diversions for irrigation upstream from station. Approximately 7 ft^3/s diverted from Fern Ridge Reservoir into Coyote Creek channel. Discharge not adjusted for storage or release from Fern Ridge Lake as evaporation from reservoir at times exceeds natural flow and diversions, and beginning in November 1951, most of flow of Amazon Creek has been diverted into Fern Ridge Lake.

AVERAGE DISCHARGE.--44 years (water years 1944-87), 531 ft^3/s, 384,700 acre-ft/yr (river only).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s Jan. 1, 1943, gage height, 15.12 ft, site and datum then in use; minimum daily discharge, 2 ft^3/s Aug. 7, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,250 ft^3/s Feb. 3, gage height, 7.40 ft; minimum discharge, 12 ft^3/s July 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	957	1830	1120	2100	45	41	21	21	60	40	55
2	293	941	703	2320	2390	46	41	21	21	69	39	55
3	322	929	424	2750	3420	47	41	20	21	70	39	44
4	321	916	428	2600	4020	47	41	21	23	50	40	42
5	321	907	427	2190	3880	65	41	21	23	50	40	46
6	459	789	344	1690	2700	57	42	20	23	49	40	47
7	719	954	242	1670	1170	42	45	20	23	47	39	47
8	836	936	263	1270	913	42	44	20	23	47	39	46
9	831	921	275	842	911	41	44	20	24	47	45	46
10	821	907	275	836	908	40	45	20	26	47	49	46
11	816	880	273	746	480	40	44	20	36	46	44	47
12	811	851	272	688	101	42	41	20	33	45	48	46
13	803	832	273	700	97	39	38	20	30	44	58	44
14	814	710	437	836	97	233	40	20	29	43	55	43
15	821	270	552	877	110	376	38	20	41	62	53	43
16	815	141	583	459	313	374	34	20	48	77	54	43
17	808	178	575	239	724	217	34	19	47	76	53	43
18	798	175	442	244	998	46	34	19	46	55	61	42
19	793	232	271	246	991	40	34	19	45	31	63	40
20	834	593	271	187	935	40	36	21	45	21	64	40
21	859	973	271	138	884	40	39	22	45	22	64	36
22	845	1240	346	141	884	41	39	22	45	24	65	41
23	833	1780	808	139	554	41	39	22	45	41	50	49
24	821	1160	965	141	189	41	39	22	45	60	35	48
25	809	944	792	938	75	41	39	22	45	62	57	47
26	794	1010	682	2430	48	41	39	22	44	62	72	47
27	868	1640	681	2830	47	41	27	22	44	54	62	47
28	874	2580	677	2440	47	41	21	22	45	41	60	47
29	902	3680	675	2050	---	41	21	22	43	39	60	46
30	971	3910	791	2030	---	41	21	23	48	40	57	44
31	977	---	955	2030	---	41	---	22	---	40	57	---
TOTAL	22823	32936	16803	37817	29986	2369	1122	645	1077	1521	1607	1357
MEAN	736	1098	542	1220	1071	76.4	37.4	20.8	35.9	49.1	51.8	45.2
MAX	977	3910	1830	2830	4020	376	45	23	48	77	72	55
MIN	234	141	242	138	47	39	21	19	21	21	35	36
AC-FT	45270	65330	33330	75010	59480	4700	2230	1280	2140	3020	3190	2690

CAL YR 1986 TOTAL 188130 MEAN 515 MAX 5260 MIN 33 AC-FT 373200
WTR YR 1987 TOTAL 150063 MEAN 411 MAX 4020 MIN 19 AC-FT 297600

14170000 LONG TOM RIVER AT MONROE, OR

LOCATION.--Lat 44°18'50", long 123°17'45", in NE 1/4 sec.33, T.14 S., R.5 W., Benton County, Hydrologic Unit 17090003, on left bank in canalized river channel at Monroe, 110 ft upstream from bridge on State Highway 99W, 0.1 mi downstream from Shafer Creek, and at mile 6.8.

DRAINAGE AREA.--391 mi^2.

PERIOD OF RECORD.--November 1920 to July 1921, October 1921 to April 1926, November 1926 to May 1927, October 1927 to current year. Prior to October 1930, published as "near Monroe."

REVISED RECORDS.--WSP 654: Drainage area. WSP 1248: 1923, 1927, 1928(M). WSP 1288: 1952.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 270.57 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 24, 1944, nonrecording gage at various sites ranging from present site to 1.5 mi downstream at different datums.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1941 by Fern Ridge Lake (station 14168000). Several small diversions upstream from station.

AVERAGE DISCHARGE.--64 years (water years 1922-25, 1928-87), 770 ft^3/s, 557,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft^3/s Jan. 2, 1943, gage height, 17.14 ft, site and datum then in use, from graph based on gage readings, includes some overflow from Willamette River near Junction City; no flow Oct. 20-22, 1944 (water filling pool at gage); minimum discharge observed prior to regulation, 7 ft^3/s Sept. 29, Oct. 1, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,270 ft^3/s Feb. 2, gage height, 8.31 ft; minimum discharge, 15 ft^3/s June 11, 13, 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	1060	2770	1780	4330	202	148	86	57	31	27	34
2	259	1030	1140	2950	4900	206	143	89	43	34	29	33
3	314	1010	647	3580	4250	245	151	83	36	44	28	37
4	311	988	605	3460	4630	253	148	73	33	35	25	25
5	308	976	577	3000	4320	235	143	68	34	33	25	31
6	377	819	530	2710	3630	262	143	66	36	33	26	32
7	624	972	366	2260	1810	207	142	59	35	31	26	38
8	852	969	358	1870	1310	197	137	56	30	24	24	33
9	848	956	366	1170	1250	226	132	51	25	25	22	34
10	843	938	358	1110	1210	229	133	48	20	24	27	33
11	839	916	356	1030	992	239	142	48	18	22	26	34
12	838	882	395	978	373	563	142	43	24	22	23	37
13	887	859	423	1140	613	783	126	42	17	24	34	39
14	837	816	666	1230	926	697	119	43	18	24	39	38
15	851	453	770	1200	720	844	117	44	17	19	39	42
16	848	120	737	891	911	709	107	48	30	39	41	43
17	845	196	697	465	1140	606	115	45	34	46	39	41
18	834	204	635	445	1550	335	123	44	30	56	39	42
19	827	258	406	440	1430	326	114	37	27	67	37	41
20	852	480	386	395	1310	278	105	37	29	54	35	38
21	899	1290	375	300	1200	255	106	36	36	35	34	35
22	889	1980	434	292	1200	231	103	35	34	26	37	28
23	876	2170	1080	351	1050	281	103	36	30	24	45	39
24	862	1870	1270	724	492	255	100	42	28	36	28	41
25	850	1370	1110	1860	330	211	97	45	26	49	23	45
26	839	1590	992	3530	246	194	95	42	23	55	41	43
27	882	3080	909	3620	228	180	87	39	22	50	38	41
28	928	4420	846	3640	215	170	70	34	24	35	35	41
29	931	4110	971	3170	---	164	68	33	23	30	36	37
30	989	4130	1080	2750	---	157	71	40	20	27	38	39
31	1070	---	1200	3250	---	152	---	68	---	27	38	---
TOTAL	23363	40912	23455	55591	46566	9892	3530	1560	859	1081	1004	1114
MEAN	754	1364	757	1793	1663	319	118	50.3	28.6	34.9	32.4	37.1
MAX	1070	4420	2770	3640	4900	844	151	89	57	67	45	45
MIN	204	120	356	292	215	152	68	33	17	19	22	25
AC-FT	46340	81150	46520	110300	92360	19620	7000	3090	1700	2140	1990	2210

CAL YR 1986 TOTAL 263975 MEAN 723 MAX 5730 MIN 22 AC-FT 523600
WTR YR 1987 TOTAL 208927 MEAN 572 MAX 4900 MIN 17 AC-FT 414400

14171750 WILLAMETTE RIVER ABOVE CALAPOOIA RIVER, AT ALBANY, OR

LOCATION.--Lat 44°38'30", long 123°07'00", in NW1/4 sec.1, T.11 S., R.4 W., Benton County, Hydrologic Unit 17090003, temperature recorder on left bank, 0.6 mi upstream from gaging station at Albany, 0.4 mi upstream from Calapooia River, and at mile 119.9.

DRAINAGE AREA.--4,460 mi^2, approximately.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 24.0°C June 30, July 14, 1987; minimum, 0.5°C Jan. 26, 1969, Dec. 11, 1972.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 24.0°C June 30, July 14; minimum, 3.5°C Jan. 17, 18.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.0	12.5	13.0	12.5	12.0	12.5	8.0	8.0	8.0	7.0	7.0	7.0
2	13.5	12.5	13.0	12.0	11.5	12.0	8.0	7.5	7.5	7.5	7.0	7.0
3	14.0	12.5	13.0	12.0	11.5	12.0	7.5	7.5	7.5	7.5	7.0	7.0
4	14.0	13.0	13.5	11.5	11.0	11.5	7.5	6.5	7.5	7.5	7.0	7.5
5	14.5	13.0	14.0	12.0	11.0	11.5	7.5	6.5	7.5	7.5	6.5	7.0
6	15.0	13.5	14.5	11.5	11.0	11.5	7.5	7.5	7.5	7.0	6.5	7.0
7	15.5	14.0	14.5	11.5	11.0	11.5	7.5	7.5	7.5	6.5	5.5	6.0
8	15.0	14.0	15.0	11.0	10.5	11.0	7.5	6.5	7.0	5.5	5.0	5.5
9	15.0	14.0	14.5	11.0	10.0	10.5	7.0	6.0	6.5	5.0	5.0	5.0
10	14.0	13.0	13.5	10.0	9.5	10.0	7.0	6.0	6.5	5.0	5.0	5.0
11	13.5	13.0	13.0	10.0	9.5	9.5	6.0	6.0	6.0	6.0	5.0	5.5
12	13.5	12.5	13.0	10.0	9.5	9.5	6.5	6.0	6.0	6.5	6.0	6.0
13	13.5	12.5	13.0	9.5	9.5	9.5	7.5	6.5	7.0	6.5	6.0	6.5
14	13.5	12.5	13.0	10.0	9.5	10.0	7.5	7.0	7.5	6.5	6.0	6.0
15	13.5	12.5	13.0	10.0	10.0	10.0	7.5	7.0	7.5	6.0	5.0	5.5
16	13.5	12.5	13.0	10.0	10.0	10.0	7.0	6.5	7.0	5.0	4.0	4.5
17	13.0	13.0	13.0	10.5	10.0	10.0	7.0	5.5	6.5	4.0	3.5	4.0
18	13.5	12.5	13.0	10.0	10.0	10.0	6.0	5.5	6.0	4.0	3.5	4.0
19	13.5	13.0	13.0	10.0	10.0	10.0	7.0	5.5	6.5	4.5	4.0	4.5
20	13.0	12.5	12.5	10.0	10.0	10.0	7.0	5.5	6.5	5.0	4.0	4.5
21	13.0	13.0	13.0	10.0	9.5	10.0	7.0	6.5	7.0	4.5	4.5	4.5
22	13.0	12.5	13.0	9.5	9.5	9.5	7.5	7.0	7.5	4.5	4.0	4.5
23	13.0	12.5	13.0	9.5	9.5	9.5	8.0	7.5	7.5	5.5	4.5	5.0
24	13.5	13.0	13.0	9.5	9.5	9.5	8.0	7.5	8.0	6.5	5.5	6.0
25	14.0	13.0	13.5	9.5	8.5	9.0	8.0	7.5	7.5	7.0	6.5	6.5
26	14.0	13.5	14.0	9.0	8.5	8.5	7.5	7.0	7.5	7.0	7.0	7.0
27	14.0	13.5	13.5	9.0	9.0	9.0	7.5	7.0	7.5	7.5	7.0	7.0
28	13.5	13.0	13.5	9.0	9.0	9.0	7.0	6.5	7.0	7.0	7.0	7.0
29	13.0	12.5	12.5	9.0	8.5	9.0	7.0	6.5	7.0	7.0	7.0	7.0
30	12.5	12.0	12.5	8.5	8.0	8.5	7.0	6.0	6.5	7.5	7.0	7.5
31	13.0	12.5	12.5	---	---	---	7.0	6.5	6.5	7.5	7.5	7.5
MONTH	15.5	12.0	13.5	12.5	8.0	10.0	8.0	5.5	7.0	7.5	3.5	6.0

14171750 WILLAMETTE RIVER ABOVE CALAPOOIA RIVER, AT ALBANY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.5	8.0	8.0	7.0	7.5	---	---	---	14.5	13.5	14.0
2	7.5	7.5	7.5	8.5	8.0	8.0	---	---	---	14.0	12.5	13.0
3	8.0	7.5	8.0	9.0	8.5	9.0	12.5	---	---	15.0	12.5	13.5
4	8.0	7.5	8.0	9.5	9.0	9.5	12.5	11.5	12.0	15.5	13.5	14.5
5	8.0	7.5	8.0	9.5	9.5	9.5	12.0	11.0	11.5	17.0	14.5	15.5
6	7.5	7.5	7.5	10.0	9.0	9.5	11.0	10.5	11.0	18.0	15.5	17.0
7	7.5	7.5	7.5	9.5	9.0	9.0	12.0	11.0	11.5	19.5	17.5	18.5
8	8.0	7.5	7.5	9.0	8.5	8.5	13.5	11.5	12.0	21.0	19.0	20.0
9	7.5	7.5	7.5	8.5	8.5	8.5	13.0	11.5	12.5	21.5	19.0	20.0
10	8.5	7.5	8.0	---	8.5	---	13.0	11.5	12.0	21.0	19.0	20.0
11	9.0	8.5	9.0	---	---	---	11.5	10.5	11.0	20.0	18.0	19.0
12	9.0	8.5	9.0	---	---	---	11.5	10.0	11.0	19.0	18.0	18.5
13	8.5	8.5	8.5	---	---	---	12.5	10.5	11.5	18.5	17.0	18.0
14	8.5	8.0	8.5	---	---	---	13.5	11.5	12.5	18.0	17.5	17.5
15	8.0	8.0	8.0	---	---	---	14.0	12.5	13.5	17.5	16.5	17.0
16	8.0	8.0	8.0	---	---	---	14.0	13.5	13.5	17.0	15.0	16.0
17	8.0	7.5	8.0	---	---	---	14.0	12.5	13.5	16.5	14.5	15.5
18	8.0	7.5	8.0	---	---	---	12.5	11.5	12.0	16.5	14.0	15.5
19	8.0	8.0	8.0	---	---	---	12.5	10.5	11.5	16.5	14.0	15.0
20	8.0	7.5	8.0	---	---	---	12.5	10.5	12.0	17.5	14.0	15.5
21	8.0	7.5	8.0	---	---	---	13.5	11.5	13.0	19.0	15.0	16.5
22	8.0	7.5	7.5	---	---	---	15.0	13.0	14.0	18.5	15.5	16.5
23	7.5	7.0	7.5	---	---	---	15.5	13.5	14.5	18.0	15.5	17.0
24	7.0	6.5	7.0	---	---	---	15.0	13.5	14.5	16.5	15.5	16.0
25	7.0	6.0	6.5	---	---	---	15.0	13.0	14.0	15.5	14.5	15.0
26	6.5	6.0	6.5	---	---	---	15.5	13.5	14.5	15.5	14.0	14.5
27	6.5	5.5	6.5	---	---	---	16.5	14.0	15.5	14.0	13.5	14.0
28	7.0	6.5	7.0	---	---	---	16.5	15.5	16.0	15.0	13.5	14.0
29	---	---	---	---	---	---	17.0	15.0	16.0	16.0	13.0	14.5
30	---	---	---	---	---	---	16.0	15.0	15.5	15.5	14.5	15.0
31	---	---	---	---	---	---	---	---	---	16.0	14.0	15.0
MONTH	9.0	5.5	8.0	---	---	---	---	---	---	21.5	12.5	16.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	14.0	15.0	23.0	20.5	21.5	19.0	17.5	18.0	22.5	20.0	21.5
2	17.5	14.5	15.5	22.5	20.0	21.0	20.5	17.0	19.0	21.0	19.0	20.5
3	19.0	15.5	17.5	20.5	19.0	19.5	22.0	18.5	20.0	20.0	18.5	19.0
4	21.0	18.0	19.0	19.0	17.5	18.5	22.5	19.5	21.0	19.5	18.0	19.0
5	19.0	18.0	19.0	18.5	17.5	18.0	22.5	20.0	21.5	20.5	18.5	19.5
6	20.0	17.0	18.5	19.0	17.0	18.0	22.0	19.5	21.0	20.5	18.0	19.5
7	20.5	17.0	18.5	18.5	17.0	18.0	22.5	19.5	21.0	20.0	18.0	19.0
8	20.5	18.0	19.0	19.0	17.5	18.0	23.0	20.5	21.5	19.5	18.0	18.5
9	21.0	18.0	19.5	19.0	17.5	18.0	23.0	21.0	22.0	20.0	18.0	19.0
10	20.5	18.0	19.0	20.5	17.5	19.0	21.5	20.0	21.0	19.0	17.5	18.5
11	21.0	18.0	19.0	21.0	18.5	20.0	21.5	19.5	20.5	17.5	16.0	17.0
12	21.0	18.0	19.5	22.5	19.0	21.0	21.5	19.0	20.0	16.0	15.5	16.0
13	22.0	19.0	20.5	23.5	20.5	22.0	20.5	19.0	19.5	16.5	15.5	16.0
14	22.0	19.5	20.5	24.0	21.0	22.5	19.5	18.5	19.0	16.0	15.5	16.0
15	20.0	18.0	19.0	23.0	20.5	22.0	19.5	18.0	18.5	16.0	15.0	15.5
16	18.0	16.0	17.0	20.5	18.5	20.0	19.5	17.5	18.5	16.5	14.5	15.5
17	18.0	15.0	16.5	18.5	17.0	18.0	19.5	17.5	18.5	16.5	15.0	15.5
18	19.0	16.0	17.5	17.0	15.5	16.5	20.0	17.5	19.0	17.0	15.0	16.0
19	20.5	17.0	18.5	17.0	15.0	16.0	21.0	18.5	19.5	17.0	15.5	16.5
20	19.0	18.0	18.5	19.0	16.0	17.5	20.5	18.5	19.5	17.0	15.5	16.5
21	18.0	17.0	17.5	20.5	18.5	19.5	20.0	18.0	19.0	17.5	16.0	16.5
22	18.5	16.0	17.0	19.5	18.0	19.0	19.5	18.0	19.0	18.0	16.0	17.0
23	19.0	16.0	17.5	19.0	17.5	18.5	20.0	17.5	19.0	18.0	16.5	17.0
24	20.5	17.0	19.0	19.5	17.5	18.5	20.5	18.0	19.5	17.0	16.0	16.5
25	21.5	18.5	20.0	20.0	18.0	19.0	21.0	18.5	20.0	16.0	15.5	15.5
26	22.5	20.0	21.0	19.0	18.0	18.5	21.0	18.5	20.0	16.0	14.5	15.5
27	23.5	20.5	22.0	19.5	17.5	18.5	21.0	18.5	20.0	16.0	14.5	15.0
28	23.5	20.5	22.0	20.0	18.0	19.0	21.0	19.5	20.0	16.0	14.5	15.0
29	23.5	21.0	22.0	20.5	18.0	19.0	21.0	19.5	20.0	16.0	14.5	15.5
30	24.0	21.0	22.5	20.0	18.0	19.0	21.5	19.5	20.5	16.5	15.0	15.5
31	---	---	---	20.5	17.5	19.0	22.0	20.0	21.0	---	---	---
MONTH	24.0	14.0	19.0	24.0	15.0	19.0	23.0	17.0	20.0	22.5	14.5	17.0

14172000 CALAPOOIA RIVER AT HOLLEY, OR

LOCATION.--Lat 44°21'05", long 122°47'10", in SE 1/4 sec.15, T.14 S., R.1 W., Linn County, Hydrologic Unit 17090003, on right bank 200 ft downstream from bridge on State Highway 228, 0.3 mi southwest of Holley, 5.0 mi upstream from Brush Creek, and at mile 45.4.

DRAINAGE AREA.--105 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to current year. Prior to October 1963, published as Calapooya River at Holley.

REVISED RECORDS.--WSP 1044: 1943. WSP 1218: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 527.58 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1963, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Aug. 22 to Sept. 9. Water-discharge records good. Slight regulation at times during low-water periods by small dam upstream. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--52 years, 437 ft^3/s, 56.52 in/yr, 316,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft^3/s Dec. 22, 1964, gage height, 14.60 ft; maximum gage height, 15.30 ft Dec. 22, 1964 (backwater from debris); minimum discharge observed, 13 ft^3/s Sept. 8, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0600	*3,770	*5.84	No other peak greater than base discharge.			

Minimum discharge, 18 ft^3/s Sept. 23, 24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	229	864	916	2240	282	277	167	161	41	38	22
2	121	161	686	1110	2170	285	268	186	117	41	38	22
3	104	127	560	1040	1460	316	258	199	101	40	37	22
4	92	108	472	933	1080	339	241	176	90	41	35	21
5	84	97	411	756	852	353	230	158	84	43	33	21
6	77	98	360	651	711	424	226	146	83	42	33	21
7	72	300	317	540	614	386	219	133	78	41	32	21
8	67	273	284	467	537	349	260	123	75	40	31	20
9	65	311	260	409	475	353	236	115	74	40	29	20
10	62	355	239	368	424	349	249	109	72	42	29	21
11	58	258	232	338	410	372	331	104	69	41	30	21
12	55	212	263	365	371	646	347	156	66	39	29	23
13	53	189	298	389	622	901	303	154	63	39	29	23
14	51	234	414	405	772	1080	268	129	61	40	33	23
15	50	201	335	361	677	960	242	120	62	39	33	30
16	49	181	291	324	697	750	225	114	64	40	31	29
17	50	444	265	297	702	695	238	108	60	37	29	24
18	55	461	255	278	702	730	260	103	58	209	28	23
19	53	647	281	261	611	665	245	98	55	261	27	22
20	49	716	246	244	540	591	230	95	54	122	27	21
21	47	1490	228	233	488	532	219	90	68	88	26	20
22	46	2080	254	229	458	471	208	86	69	80	25	19
23	45	1440	418	253	466	529	198	84	59	79	25	19
24	45	1150	412	539	417	542	185	88	54	68	24	19
25	44	933	371	979	377	490	174	91	50	60	24	20
26	50	967	454	1380	345	450	164	89	48	55	24	22
27	92	2550	408	1260	320	400	157	85	46	52	23	23
28	115	3180	359	1210	299	363	152	82	45	48	23	21
29	80	1770	398	1030	---	332	144	79	43	45	23	19
30	203	1160	422	872	---	305	145	86	41	43	22	19
31	306	---	388	1270	---	287	---	144	---	40	22	---
TOTAL	2486	22322	11445	19707	19837	15527	6899	3697	2070	1936	892	651
MEAN	80.2	744	369	636	708	501	230	119	69.0	62.5	28.8	21.7
MAX	306	3180	864	1380	2240	1080	347	199	161	261	38	30
MIN	44	97	228	229	299	282	144	79	41	37	22	19
AC-FT	4930	44280	22700	39090	39350	30800	13680	7330	4110	3840	1770	1290
CFSM	.76	7.09	3.52	6.05	6.75	4.77	2.19	1.14	.66	.59	.27	.21
IN.	.88	7.91	4.05	6.98	7.03	5.50	2.44	1.31	.73	.69	.32	.23

CAL YR 1986 TOTAL 144191 MEAN 395 MAX 5530 MIN 18 AC-FT 286000 CFSM 3.76 IN. 51.08
WTR YR 1987 TOTAL 107469 MEAN 294 MAX 3180 MIN 19 AC-FT 213200 CFSM 2.80 IN. 38.07

14172000 CALAPOOIA RIVER AT HOLLEY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.5°C July 17, Aug, 7, 1972, Aug. 12, 16, 1977; minimum, 0.0°C at times during winter months.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 29.0°C June 30, July 13, 14; minimum recorded, 3.5°C Feb. 25, 26.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.5	10.5	11.5	10.0	8.5	9.0	7.5	6.0	7.0			
2	12.0	9.5	10.5	9.0	7.5	8.5	7.0	6.5	7.0			
3	13.0	10.0	11.0	9.0	7.5	8.0	6.5	6.0	6.5			
4	13.5	10.0	11.5	9.0	7.5	8.0	6.5	6.0	6.0			
5	14.0	10.5	12.5	9.5	8.0	8.5	7.0	6.5	6.5			
6	14.5	11.0	12.5	9.5	8.5	9.0	7.0	6.5	6.5			
7	15.0	11.5	13.0	9.0	8.0	8.5	6.5	5.5	6.0			
8	14.5	11.0	12.5	9.5	8.0	8.5	5.5	5.0	5.5			
9	12.0	11.0	11.5	8.5	8.0	8.5	---	---	---			
10	13.5	10.0	11.5	8.5	7.0	7.5	---	---	---			
11	13.0	9.0	10.5	8.0	6.5	7.5	---	---	---			
12	12.0	8.0	10.0	7.5	7.0	7.5	---	---	---			
13	12.0	8.0	10.0	8.5	7.0	7.5	---	---	---			
14	12.5	8.0	10.0	9.0	8.5	8.5	---	---	---			
15	12.5	8.0	10.0	8.5	8.0	8.0	---	---	---			
16	12.0	8.5	10.0	8.5	7.5	8.0	---	---	---			
17	11.0	10.0	10.5	8.5	8.0	8.0	---	---	---			
18	13.0	10.5	11.5	8.5	7.5	8.0	---	---	---			
19	11.5	10.0	10.5	9.0	8.0	8.5	---	---	---			
20	12.5	9.0	10.5	9.5	8.5	9.0	---	---	---			
21	12.0	9.5	10.5	9.0	8.0	8.5	---	---	---			
22	11.5	9.5	10.5	8.5	8.5	8.5	---	---	---			
23	11.0	9.0	10.0	9.5	8.5	9.0	---	---	---			
24	12.5	10.0	11.0	9.0	7.5	8.5	---	---	---			
25	14.0	11.5	12.5	7.5	6.0	7.0	---	---	---			
26	13.5	12.0	13.0	8.5	7.5	8.0	---	---	---			
27	14.0	11.5	12.5	8.5	8.0	8.5	---	---	---			
28	11.5	10.0	10.5	8.5	8.0	8.0	---	---	---			
29	10.5	9.0	9.5	8.0	7.0	7.5	---	---	---			
30	11.0	10.0	10.5	7.0	6.0	6.5	---	---	---			
31	11.0	10.0	10.5	---	---	---	---	---	---			
MONTH	15.0	8.0	11.0	10.0	6.0	8.0	---	---	---			

14172000 CALAPOOIA RIVER AT HOLLEY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.5	6.5	7.5	---	---	---	13.0	10.5	11.5
2	---	---	---	9.0	7.0	8.0	---	---	---	12.0	9.5	10.5
3	---	---	---	---	8.5	---	---	---	---	15.5	10.5	13.0
4	---	---	---	---	---	---	---	---	---	14.0	12.5	13.5
5	---	---	---	---	---	---	---	---	---	17.5	11.5	14.5
6	---	---	---	---	---	---	10.5	---	---	20.0	14.0	17.0
7	---	---	---	---	---	---	12.5	9.5	11.0	21.5	16.0	18.5
8	---	---	---	---	---	---	12.0	10.0	11.0	22.5	17.0	20.0
9	---	---	---	---	---	---	12.0	8.0	10.0	22.5	17.0	19.5
10	10.0	8.0	9.0	---	---	---	10.5	9.0	9.5	22.0	16.0	19.0
11	9.0	7.5	8.5	---	---	---	9.5	7.5	8.5	21.0	16.0	18.5
12	8.5	6.5	7.5	---	---	---	11.0	6.5	9.0	18.5	15.5	16.5
13	8.5	8.0	8.5	---	---	---	11.5	7.5	10.0	18.0	14.5	16.0
14	8.0	7.0	7.5	---	---	---	13.5	8.5	11.0	18.5	16.0	17.0
15	8.0	7.0	7.5	---	---	---	14.5	10.5	12.5	16.5	13.0	15.0
16	7.5	7.0	7.5	---	---	---	14.0	10.5	12.5	16.5	11.0	13.5
17	8.0	7.0	7.5	---	---	---	12.5	9.0	11.0	13.5	12.0	12.5
18	8.0	6.5	7.0	---	---	---	10.5	8.0	9.0	15.5	10.5	13.0
19	7.5	5.5	6.5	---	---	---	11.0	6.5	9.0	16.0	10.5	13.0
20	7.5	5.5	6.5	---	---	---	12.0	7.0	10.0	17.0	10.5	13.5
21	8.0	7.0	7.5	---	---	---	14.0	9.0	11.5	18.5	11.5	14.5
22	7.0	6.0	6.5	---	---	---	14.5	10.0	12.5	18.5	12.5	15.0
23	6.5	5.5	6.0	---	---	---	15.5	11.0	13.0	17.0	12.0	14.5
24	6.5	4.5	5.5	---	---	---	14.0	10.0	12.0	14.5	13.0	13.5
25	5.5	3.5	4.5	---	---	---	13.5	9.5	11.5	12.5	11.5	12.0
26	6.0	3.5	5.0	---	---	---	16.0	10.0	13.0	13.5	11.0	12.0
27	6.5	5.0	6.0	---	---	---	18.0	12.5	15.5	12.5	11.5	12.0
28	7.5	5.5	6.5	---	---	---	16.5	14.0	15.5	15.5	11.5	13.5
29	---	---	---	---	---	---	17.5	12.0	14.5	18.0	12.0	14.5
30	---	---	---	---	---	---	15.0	12.0	14.0	15.0	13.0	14.0
31	---	---	---	---	---	---	---	---	---	13.5	12.0	12.5
MONTH	---	---	---	---	---	---	---	---	---	22.5	9.5	14.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	10.0	13.0	26.5	21.0	23.0	21.5	15.5	18.5	25.5	19.0	22.0
2	18.0	11.5	15.0	26.0	19.5	22.0	24.5	15.5	19.5	23.5	17.5	20.5
3	21.0	13.5	17.5	21.5	18.5	19.5	26.5	16.5	21.0	23.0	15.5	19.0
4	22.5	16.5	19.0	21.0	17.5	19.0	26.5	18.5	22.5	23.0	14.5	18.5
5	18.0	15.5	17.0	20.5	17.0	18.5	26.0	18.0	21.5	23.5	15.0	19.0
6	20.5	14.5	17.0	22.5	16.0	19.0	25.0	18.0	21.0	24.0	16.0	20.0
7	21.0	15.0	18.0	21.5	16.5	19.0	26.5	17.0	21.5	22.0	16.5	19.0
8	21.0	16.5	18.0	20.5	17.0	18.5	28.0	18.5	23.0	22.0	16.5	18.5
9	21.5	15.0	19.5	21.0	15.5	18.0	27.0	19.5	22.5	23.0	15.5	19.0
10	21.5	14.5	18.0	23.5	17.5	20.0	22.5	19.0	20.5	18.0	15.5	17.0
11	22.5	14.5	18.0	25.5	17.0	21.0	24.0	17.5	20.0	17.5	16.0	16.5
12	24.0	16.0	19.5	28.0	18.5	23.0	25.0	16.5	20.5	16.5	15.5	16.0
13	25.0	17.0	20.5	29.0	19.5	24.0	20.0	18.0	19.0	19.0	15.0	16.5
14	24.5	18.0	20.5	29.0	20.0	24.0	20.0	17.0	18.5	17.0	13.5	15.5
15	18.5	15.0	17.0	26.5	19.0	22.0	21.5	17.0	18.5	17.0	13.0	15.0
16	17.5	14.0	15.5	20.5	17.0	18.5	23.0	15.0	18.5	17.5	11.0	14.0
17	20.0	12.5	16.0	17.0	15.5	16.5	23.5	14.5	18.5	18.5	10.5	14.5
18	22.5	14.0	18.0	15.5	14.0	15.0	24.0	15.0	19.5	19.0	11.0	15.0
19	24.0	15.0	19.5	19.0	13.0	16.0	25.0	16.0	20.0	19.5	11.5	15.5
20	19.0	17.0	17.5	20.0	15.0	18.0	24.0	16.0	19.5	19.0	12.0	15.5
21	17.5	15.0	16.5	20.0	16.5	18.0	23.5	14.5	18.5	20.0	12.5	16.0
22	21.0	13.0	17.0	19.0	16.5	17.5	21.5	15.0	18.0	21.0	13.0	17.0
23	22.5	14.5	18.5	21.5	16.0	18.5	24.5	17.0	20.5	20.0	14.0	17.0
24	24.0	15.5	19.5	22.0	17.5	19.5	25.0	16.5	20.5	16.0	14.5	15.0
25	26.0	17.0	21.5	22.0	18.0	19.5	25.0	16.5	20.5	16.0	14.0	15.0
26	27.5	19.0	23.0	20.0	17.5	18.5	25.5	17.5	21.0	18.0	13.5	15.5
27	27.5	19.5	23.5	20.5	16.5	18.0	25.5	17.5	21.0	17.0	10.5	13.5
28	28.0	19.5	23.5	23.5	16.5	19.5	25.5	17.5	21.0	18.0	10.5	14.0
29	28.5	19.5	24.0	23.0	17.5	19.5	25.0	16.0	20.5	18.0	11.0	14.0
30	29.0	21.0	24.5	21.0	17.5	19.5	26.0	17.0	21.5	18.5	11.0	14.5
31	---	---	---	23.5	16.0	19.5	27.5	19.0	23.0	---	---	---
MONTH	29.0	10.0	19.0	29.0	13.0	19.5	28.0	14.5	20.5	25.5	10.5	16.5

14173500 CALAPOOIA RIVER AT ALBANY, OR

LOCATION.--Lat 44°37′15", long 123°07′40", in NW 1/4 sec.13, T.11 S., R.4 W., Linn County, Hydrologic Unit 17090003, near right bank on downstream side of bridge on Riverside Drive at Albany, 0.6 mi downstream from Oak Creek, and at mile 3.0.

DRAINAGE AREA.--372 mi^2.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: January 1964 to current year.

INSTRUMENTATION.--Temperature recorder since January 1964.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.0°C July 19, 20, 1985; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 27.0°C June 29, 30, July 14; minimum recorded, 3.0°C Jan. 17-19.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	12.5	13.0	12.0	11.5	12.0	7.5	7.5	7.5	7.5	6.5	7.0
2	13.5	12.0	12.5	12.0	11.0	11.5	7.5	7.0	7.5	7.5	7.0	7.5
3	14.0	12.0	13.0	11.0	10.5	11.0	7.5	7.0	7.5	8.0	7.0	7.5
4	15.0	13.0	14.0	10.5	10.0	10.0	7.0	7.0	7.0	8.0	7.5	8.0
5	15.5	13.0	14.0	10.5	10.0	10.0	7.0	6.5	6.5	7.5	7.0	7.5
6	16.0	13.5	15.0	10.5	9.5	10.0	7.0	7.0	7.0	7.0	6.5	7.0
7	16.0	13.5	15.0	10.5	9.5	10.0	7.0	7.0	7.0	6.5	5.0	6.0
8	16.5	14.0	15.0	10.0	9.5	10.0	7.0	6.5	7.0	5.0	4.5	5.0
9	15.5	15.0	15.0	10.0	9.5	10.0	6.5	5.5	6.0	4.5	4.0	4.0
10	15.5	14.0	14.5	9.5	8.5	9.0	5.5	5.0	5.0	4.5	4.0	4.0
11	15.5	13.0	14.0	8.5	8.0	8.5	5.0	4.5	4.5	5.0	4.0	4.5
12	14.5	12.5	13.5	8.5	8.0	8.0	5.0	4.5	4.5	6.5	5.0	6.0
13	14.0	12.0	13.0	8.0	7.5	8.0	6.5	5.0	5.5	6.5	6.0	6.5
14	14.0	12.0	12.5	8.0	8.0	8.0	7.5	6.5	7.0	6.0	5.5	6.0
15	13.5	11.5	12.5	9.0	8.0	8.5	7.5	7.5	7.5	5.5	4.5	5.5
16	13.0	12.0	12.5	9.0	9.0	9.0	7.5	6.5	7.0	4.5	3.5	4.0
17	12.5	12.0	12.5	10.0	9.0	9.5	6.5	5.5	6.0	3.5	3.0	3.0
18	13.5	12.0	13.0	10.0	9.0	9.5	5.5	5.0	5.5	3.5	3.0	3.0
19	12.5	12.0	12.5	9.5	9.5	9.5	5.5	5.0	5.5	4.0	3.0	3.5
20	13.0	11.5	12.0	10.0	9.5	10.0	5.5	5.0	5.5	4.5	3.5	4.0
21	12.0	12.0	12.0	10.0	9.5	10.0	6.5	5.5	6.0	4.5	4.0	4.0
22	12.0	11.5	12.0	9.5	9.5	9.5	7.5	6.5	7.0	4.0	4.0	4.0
23	12.0	11.5	12.0	9.5	9.5	9.5	8.0	7.5	8.0	5.0	4.0	4.5
24	12.5	12.0	12.0	10.0	9.5	10.0	8.0	8.0	8.0	7.0	5.0	6.0
25	13.5	12.5	13.0	9.5	8.0	9.0	8.0	8.0	8.0	7.5	7.0	7.0
26	13.5	13.0	13.5	8.5	8.0	8.0	8.0	7.5	7.5	8.0	7.5	---
27	14.5	12.5	13.5	9.5	8.5	9.0	8.0	7.5	7.5	---	---	---
28	13.5	12.5	13.0	9.5	9.0	9.0	7.5	6.5	7.0	---	---	---
29	13.0	12.5	12.5	9.0	9.0	9.0	7.0	6.5	7.0	---	---	---
30	13.0	12.5	12.5	9.0	7.5	8.5	7.0	7.0	7.0	---	---	---
31	12.5	12.0	12.5	---	---	---	7.0	6.5	6.5	---	---	---
MONTH	16.5	11.5	13.0	12.0	7.5	9.5	8.0	4.5	6.5	---	---	---

14173500 CALAPOOIA RIVER AT ALBANY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	13.0	10.5	11.5	16.0	14.5	15.0
2				---	---	---	14.0	11.5	12.5	15.0	14.0	14.0
3				---	---	---	13.5	12.5	13.0	16.5	13.0	14.5
4				---	---	---	13.0	11.5	12.5	16.0	14.0	15.0
5				---	---	---	12.0	11.0	11.5	18.0	14.0	16.0
6				---	---	---	11.0	10.5	11.0	19.5	16.0	17.5
7				---	---	---	12.0	10.0	11.0	21.0	17.5	19.0
8				---	---	---	13.0	11.0	12.0	22.5	19.5	21.0
9				---	---	---	13.5	11.5	12.5	23.0	20.5	22.0
10				9.5	---	---	12.5	11.5	12.0	23.0	20.5	21.5
11				9.5	9.5	9.5	12.0	10.5	11.0	21.5	20.0	21.0
12				10.0	9.5	9.5	11.5	9.5	10.5	21.0	19.5	20.0
13				10.5	10.0	10.0	12.0	9.5	10.5	20.0	19.0	19.5
14				10.0	9.5	10.0	13.5	11.0	12.0	20.0	19.0	19.5
15				9.5	8.5	9.0	14.5	12.0	13.0	19.0	18.0	18.5
16				9.0	8.5	9.0	14.5	13.0	13.5	18.5	16.0	17.5
17				10.0	9.0	9.5	14.0	12.5	13.5	18.0	16.5	17.0
18				9.5	8.5	9.0	12.5	10.5	12.0	17.0	15.0	16.0
19				8.5	8.0	8.5	12.0	10.0	11.0	16.5	15.0	15.5
20				9.0	8.0	8.5	12.0	10.0	11.0	18.0	15.0	16.0
21				9.5	8.5	9.0	13.5	10.5	12.0	18.5	15.5	16.5
22				9.5	9.0	9.0	14.5	12.0	13.0	19.0	15.5	17.0
23				10.0	9.0	9.5	16.0	13.5	14.5	18.5	15.5	17.0
24				10.5	9.5	10.0	16.0	13.0	14.5	17.0	16.0	16.5
25				9.5	8.5	9.0	15.5	13.0	14.5	16.5	15.0	15.5
26				9.0	8.0	8.5	16.0	13.0	14.5	16.5	14.5	15.5
27				9.5	8.0	9.0	17.5	14.0	15.5	16.0	14.5	15.0
28				10.0	8.0	9.0	17.0	15.0	16.0	15.5	14.0	14.5
29				10.5	8.0	9.0	18.5	15.0	16.5	17.0	14.0	15.5
30				11.0	8.5	10.0	17.5	16.0	16.5	16.0	15.0	15.5
31				12.0	9.5	10.5	---	---	---	16.0	14.0	15.0
MONTH				---	---	---	18.5	9.5	13.0	23.0	13.0	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	14.0	15.5	25.5	22.5	24.0	20.0	18.0	19.0			
2	17.5	14.5	16.0	25.0	22.0	23.0	21.5	17.0	19.5			
3	19.5	15.5	17.5	23.0	21.0	22.0	24.0	19.0	21.0			
4	20.5	18.0	19.0	21.5	19.5	20.5	25.0	20.5	22.5			
5	19.0	18.5	19.0	20.5	18.5	19.5	24.5	20.5	22.5			
6	21.5	17.5	19.0	21.0	18.5	19.5	23.5	20.0	22.0			
7	22.0	18.0	20.0	20.5	18.5	19.5	24.5	20.0	22.5			
8	22.0	19.0	20.5	20.5	18.5	19.5	26.5	21.5	24.0			
9	21.5	18.0	20.0	20.0	18.0	19.0	25.0	21.5	23.5			
10	21.5	18.0	19.5	22.0	18.5	20.0	23.0	21.0	22.0			
11	22.5	18.0	20.0	23.5	19.5	21.5	23.0	20.5	21.5			
12	22.5	19.0	20.5	25.0	20.5	23.0	23.5	20.0	21.5			
13	24.0	19.5	21.5	25.5	21.5	23.5	22.0	20.0	21.0			
14	24.0	20.5	22.0	27.0	22.5	24.5	20.5	19.5	20.0			
15	21.0	18.5	20.0	25.5	21.5	23.5	20.5	19.0	19.5			
16	18.5	17.0	18.0	23.0	20.0	21.5	21.0	18.5	19.5			
17	20.0	16.0	18.0	20.0	18.5	19.5	21.5	17.5	19.5			
18	21.5	17.0	19.0	19.0	16.5	17.5	22.5	18.0	20.0			
19	22.5	18.0	20.0	20.5	16.0	18.0	23.0	19.0	21.0			
20	20.5	18.5	19.0	20.0	17.0	18.5	22.0	19.0	20.5			
21	19.0	17.5	18.0	19.5	18.0	19.0	21.5	18.5	20.0			
22	21.0	16.0	18.0	20.0	18.5	19.0	20.0	18.0	19.0			
23	21.5	17.5	19.0	21.0	18.5	19.5	21.0	18.0	19.5			
24	22.0	18.0	20.0	21.0	18.5	19.5	21.0	18.0	19.5			
25	24.5	19.0	21.5	21.5	18.5	20.0	20.5	17.5	19.0			
26	26.0	21.0	23.0	20.0	19.0	19.5	21.0	17.5	19.0			
27	26.5	22.0	24.0	21.0	18.0	19.5	---	---	---			
28	26.5	22.0	24.0	22.0	18.5	20.0	---	---	---			
29	27.0	22.0	24.5	22.0	18.5	20.0	---	---	---			
30	27.0	22.5	24.5	20.5	19.0	20.0	---	---	---			
31	---	---	---	21.5	18.0	19.5	---	---	---			
MONTH	27.0	14.0	20.0	27.0	16.0	20.5	---	---	---			

14174000 WILLAMETTE RIVER AT ALBANY, OR

LOCATION.--Lat 44°38'20", long 123°06'20", in SW 1/4 sec.6, T.11 S., R.3 W., Linn County, Hydrologic Unit 17090003, on right bank 5 ft upstream from bridge on U.S. Highway 20 (Ellsworth Street) in Albany, 0.2 mi downstream from Calapooia River, and at mile 119.31.

DRAINAGE AREA.--4,840 mi², approximately.

PERIOD OF RECORD.--November 1878 to April 1888 (fragmentary), January to June 1892, November 1892 to September 1894, December 1894 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 694: Drainage area. WSP 904: 1939. WSP 964: 1881, 1890, 1894, 1897, 1901, 1903, 1908, 1910, 1916, 1923, 1927, 1932(M). WSP 984: 1916. WSP 1248: 1895, 1902, 1907, 1915(M), 1917(M), 1918-19, 1934(M). WSP 1318 (monthly and annual figures only): 1894, 1897, 1901-3, 1907-8, 1910, 1916, 1918-19, 1923, 1927.

GAGE.--Water-stage recorder. Datum of gage is 167.18 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1906, nonrecording gage at site 0.2 mi upstream at datum 5.00 ft higher. Sept. 27, 1906, to Nov. 12, 1934, nonrecording gage at site 300 ft upstream at datum 5.00 ft higher. Nov. 14, 1934, to Sept. 30, 1962, at datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by nine reservoirs upstream from station (see elsewhere in this report). Albany power canal diverts water from South Santiam River at Lebanon and discharges into Calapooia River near mouth; small diversions for irrigation and municipal water supply.

AVERAGE DISCHARGE.--93 years (water years 1894, 1896-87), 14,480 ft³/s, 40.63 in/yr, 10,490,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266,000 ft³/s Jan. 14, 1881, gage height, 37.8 ft, present datum; minimum discharge, 1,840 ft³/s Sept. 1, 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 4, 1861, reached a stage of 41.0 ft, discharge, 340,000 ft³/s, from rating curve extended above 220,000 ft³/s. Flood of Feb. 4, 1890, reached a stage of 38.9 ft, discharge, 291,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62,300 ft³/s Nov. 29, gage height, 20.06 ft; minimum discharge, 3,850 ft³/s June 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11600	11900	50200	15800	40800	8370	7250	5760	4580	4000	4100	4950
2	10800	11300	47600	26800	53300	8190	7050	5870	4680	4020	4080	4920
3	10100	10600	40600	32700	58000	8530	7000	5930	4400	4050	4030	5000
4	9200	10200	30500	33600	49100	9370	6970	5860	4190	4140	3980	5090
5	8770	10200	25000	29500	42100	8920	6900	5710	4110	4210	3910	5090
6	8590	10600	22000	27800	33500	9090	6810	5510	4050	4130	4040	5070
7	8500	10600	20400	25600	24600	8980	6770	5370	4000	4090	4070	5080
8	8580	11900	19400	21100	18800	8420	6740	5230	3970	4090	4060	5100
9	8580	12200	15700	17800	17000	8290	6990	5050	3890	4100	4030	5050
10	8540	13300	13200	14900	15900	9900	6750	5070	3870	4140	4020	5050
11	8460	14500	12400	13200	13400	10700	7060	4940	3960	4120	4030	5020
12	8490	13800	12300	13100	12000	12400	7770	4840	4010	4100	4070	5130
13	8640	12700	12600	14800	11900	16200	7710	4930	3970	4090	4080	5140
14	8760	12400	14200	14200	16800	16400	7240	4990	3930	4080	4220	5150
15	8820	12300	15400	13600	19300	18300	6860	4810	3920	4060	4720	5140
16	8670	12900	14100	12600	18700	16700	6630	4670	3960	4050	4750	5060
17	8660	12400	13000	10900	18300	14300	6620	4590	4130	4190	4750	5060
18	9030	13800	12300	9510	17900	13500	6940	4460	4120	4570	4870	5160
19	9060	14700	11400	9020	16600	14600	6910	4410	4070	5750	4830	5170
20	8980	16900	10600	8610	14900	14200	6590	4300	4020	5870	4950	5120
21	9000	21300	10100	8190	13500	13100	6320	4280	4080	4790	4890	5050
22	9250	33400	9850	7690	12800	11900	6180	4210	4310	4470	4880	5110
23	8960	41300	11600	7760	12500	11600	6150	4170	4210	4680	4930	5150
24	8880	39900	12000	10000	11900	12300	6130	4110	4080	4510	4930	5250
25	9170	36900	11700	17400	10700	11300	5970	4220	4030	4260	4900	5440
26	9140	33300	11900	28400	9810	10400	5830	4390	4050	4450	4890	5510
27	9290	38800	12400	38600	9150	9680	5720	4340	4060	4470	4910	5410
28	9510	52300	11600	40900	8710	9050	5660	4260	4040	4400	4970	5450
29	9150	61300	11700	40700	---	8500	5640	4190	4040	4230	5010	5240
30	9300	54000	13200	34800	---	8100	5650	4220	4010	4120	5030	5320
31	10500	---	13800	30800	---	7690	---	4290	---	4110	5060	---
TOTAL	282980	661700	542750	630380	601970	348980	198810	148980	122740	134340	139990	154480
MEAN	9128	22060	17510	20330	21500	11260	6627	4806	4091	4334	4516	5149
MAX	11600	61300	50200	40900	58000	18300	7770	5930	4680	5870	5060	5510
MIN	8460	10200	9850	7690	8710	7690	5640	4110	3870	4000	3910	4920
AC-FT	561300	1312000	1077000	1250000	1194000	692200	394300	295500	243500	266500	277700	306400
CFSM	1.89	4.56	3.62	4.20	4.44	2.33	1.37	.99	.85	.90	.93	1.06
IN.	2.17	5.09	4.17	4.85	4.63	2.68	1.53	1.15	.94	1.03	1.08	1.19

CAL YR 1986 TOTAL 5252650 MEAN 14390 MAX 89000 MIN 4120 AC-FT 10420000 CFSM 2.97 IN. 40.37
WTR YR 1987 TOTAL 3968100 MEAN 10870 MAX 61300 MIN 3870 AC-FT 7871000 CFSM 2.25 IN. 30.50

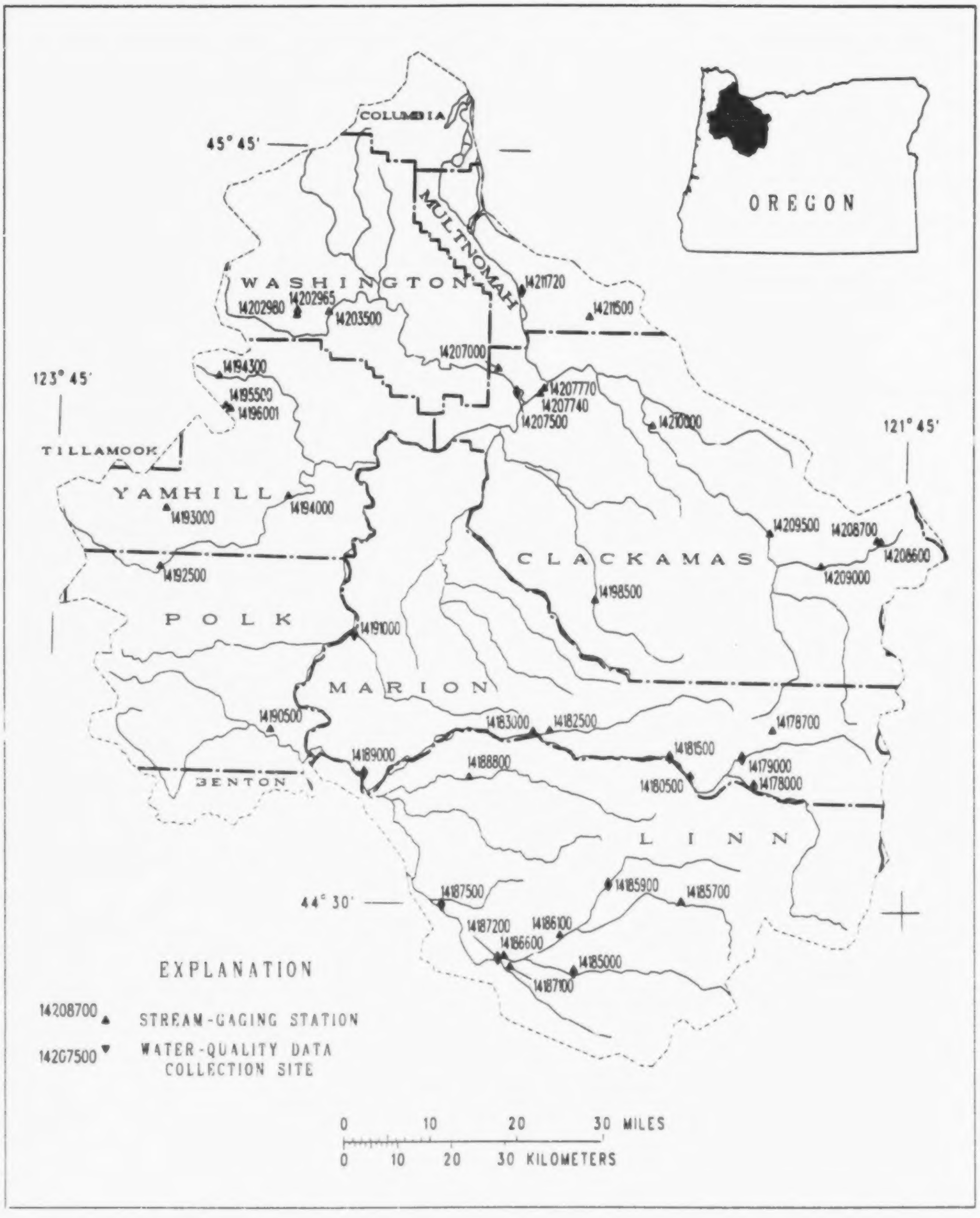
OREGON
COLUMBIA
45° 45'
MULTNOMAH
WASHINGTON
14211720
14202980
14202965
14203500
14211500
14207000
123° 45'
14194300
14195500
14196001
14207770
14207740
14207500
14210000
121° 45'
TILLAMOOK
YAMHILL
14193000
14194000
14209500
14208700
14208600
CLACKAMAS
14192500
14209000
14198500
POLK
14191000
MARION
14190500
14183000
14182500
14178700
14189000
14188800
14181500
14179000
14178000
14180500
BENTON
LINN
14187500
14185900
14185700
44° 30'
14187200
14186100
14186600
14185000
14187100
EXPLANATION
14208700 ▲ STREAM-GAGING STATION
14207500 ▼ WATER-QUALITY DATA COLLECTION SITE
0 10 20 30 MILES
0 10 20 30 KILOMETERS

Figure 4.--Location of surface-water and water-quality stations in the Santiam River, Willamette River, downstream from the Luckiamute River, Yamhill River, Molalla-Pudding River, Tualatin River, and Clackamas River basins.

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°42'25", long 122°06'00", in SE 1/4 NW 1/4 sec.17, T.10 S., R.6 E., Marion County, Hydrologic Unit 17090005, on right bank 0.5 mi downstream from Boulder Creek, 3.0 mi southeast of Detroit, and at mile 70.7.

DRAINAGE AREA.--216 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1907 to October 1909, October 1928 to current year. Monthly discharge only January 1907, published in WSP 1318. Prior to October 1952, published as "at Detroit."

REVISED RECORDS.--WSP 814: Drainage area at former site. WSP 1248: 1931. WRD OR-85-2: 1982-82(P).

GAGE.--Water-stage recorder. Datum of gage is 1,590.07 ft above National Geodetic Vertical Datum of 1929. See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--No estimated daily discharges. Water-discharge records excellent except for flows above 3,000 ft^3/s, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--61 years, 1,007 ft^3/s, 63.31 in/yr, 729,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft^3/s Dec. 22, 1964, slope-area measurement of peak flow, gage height, 13.76 ft, temporary backwater from debris; minimum discharge, 250 ft^3/s Sept. 13, 1909.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1100	*5,890	*7.23	Feb. 1	1130	3,820	6.28

Minimum discharge, 323 ft^3/s Sept. 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	516	617	1660	1040	3180	769	835	1190	760	468	432	367
2	490	544	1410	1030	2770	805	920	1100	688	460	426	366
3	472	504	1240	1150	2290	928	996	1120	660	451	424	359
4	459	479	1120	1120	1880	1060	992	1040	669	449	423	354
5	450	475	1060	1010	1610	1180	957	1030	665	447	418	354
6	444	526	997	924	1450	1340	963	1100	629	438	411	353
7	437	608	919	852	1370	1220	954	1170	616	435	410	356
8	428	591	860	796	1310	1130	1220	1200	609	434	410	356
9	422	597	812	754	1270	1120	1120	1110	593	434	410	351
10	416	589	772	728	1240	1120	1120	1030	580	431	406	348
11	409	552	747	707	1300	1150	1230	958	566	423	400	352
12	407	543	741	715	1270	1600	1140	1200	563	423	396	354
13	402	543	817	702	1720	2020	1070	1190	553	424	413	352
14	401	627	903	688	1730	2020	1040	1020	554	425	410	354
15	398	614	835	646	1600	1760	1050	927	561	425	399	360
16	397	655	786	613	1490	1520	1090	860	535	413	394	347
17	398	1020	755	614	1410	1480	1140	796	515	435	390	343
18	405	1140	735	604	1320	1440	1090	750	504	651	387	339
19	400	1720	723	588	1210	1290	1000	712	496	529	387	338
20	394	2280	695	573	1130	1200	940	680	502	471	386	338
21	393	2660	676	565	1060	1120	919	655	534	541	381	338
22	391	2280	735	559	1010	1040	956	636	516	705	380	336
23	388	2420	960	569	976	1020	1010	637	492	540	379	334
24	388	2850	872	697	915	962	1020	679	484	584	378	334
25	390	2250	820	997	863	923	992	684	484	562	375	335
26	413	2350	870	1520	825	893	965	645	486	505	372	342
27	491	4800	823	1740	799	851	1040	631	482	482	371	334
28	443	4310	782	1700	774	824	1230	614	474	468	371	330
29	441	2770	840	1460	---	798	1160	598	474	456	367	327
30	627	2040	843	1300	---	784	1160	648	478	449	364	326
31	720	---	810	1700	---	793	---	798	---	437	365	---
TOTAL	13630	43954	27618	28661	39772	36160	31319	27398	16722	14795	12235	10377
MEAN	440	1465	891	925	1420	1166	1044	884	557	477	395	346
MAX	720	4800	1660	1740	3180	2020	1230	1200	760	705	432	367
MIN	388	475	676	559	774	769	835	598	474	413	364	326
AC-FT	27040	87180	54780	56850	78890	71720	62120	54340	33170	29350	24270	20580
CFSM	2.04	6.78	4.12	4.28	6.58	5.40	4.83	4.09	2.58	2.21	1.83	1.60
IN.	2.35	7.57	4.76	4.94	6.85	6.23	5.39	4.72	2.88	2.55	2.11	1.79

CAL YR 1986 TOTAL 388572 MEAN 1065 MAX 10500 MIN 388 AC-FT 770700 CFSM 4.93 IN. 66.92
WTR YR 1987 TOTAL 302641 MEAN 829 MAX 4800 MIN 326 AC-FT 600300 CFSM 3.84 IN. 52.12

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1951 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since April 1951.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 19.0°C July 8, 18, 19, 1970; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 17.5°C June 28, July 1, 14; minimum, 0.0°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	8.0	8.5	8.0	7.0	7.5	5.5	4.5	5.0	4.5	3.5	4.0
2	9.0	7.5	8.5	6.5	6.0	6.5	5.5	4.5	5.0	4.0	3.5	4.0
3	9.0	7.5	8.5	6.5	5.5	6.0	4.5	4.0	4.5	5.0	4.0	4.5
4	9.5	7.5	8.5	7.0	6.0	6.5	5.0	4.5	4.5	5.0	4.5	4.5
5	9.5	7.5	9.0	7.0	6.5	6.5	5.5	5.0	5.0	4.5	4.0	4.0
6	10.0	8.0	9.0	7.0	6.5	7.0	5.5	4.5	5.5	3.5	3.0	3.0
7	9.5	8.5	9.0	6.5	4.5	5.0	4.5	4.0	4.0	3.0	2.0	2.5
8	9.0	7.5	8.5	6.0	5.5	5.5	4.0	3.5	3.5	2.5	1.5	2.0
9	9.5	7.5	8.5	6.0	5.5	6.0	3.5	3.0	3.5	2.0	1.5	2.0
10	8.5	7.0	8.0	6.0	4.5	5.0	3.5	3.0	3.0	3.0	2.0	2.5
11	8.0	6.0	7.5	6.0	5.0	5.5	4.0	3.0	3.5	3.5	2.5	3.0
12	7.5	6.0	7.0	6.0	4.5	5.5	4.0	4.0	4.0	4.0	3.5	3.5
13	7.5	6.0	7.0	6.0	4.5	5.5	4.5	4.0	4.5	3.5	3.0	3.5
14	7.5	6.5	7.0	6.5	6.0	6.5	5.0	4.5	5.0	3.0	2.5	3.0
15	8.0	6.5	7.5	6.5	6.0	6.0	4.5	4.0	4.0	3.0	1.0	2.0
16	8.0	6.5	7.5	6.0	5.0	5.5	4.0	3.5	3.5	1.0	.0	.5
17	8.0	8.0	8.0	5.5	5.0	5.0	3.5	3.5	3.5	2.0	.5	1.0
18	9.0	8.0	8.5	6.0	5.0	5.5	4.0	3.0	3.5	3.0	2.0	2.5
19	8.5	7.5	8.0	6.5	6.0	6.0	4.0	4.0	4.0	3.0	2.5	3.0
20	7.5	6.0	7.0	7.0	6.0	6.5	4.0	3.5	4.0	2.5	1.5	2.0
21	8.0	6.5	7.5	6.0	5.0	6.0	5.0	4.0	4.5	2.5	1.5	2.0
22	7.5	6.5	7.5	5.5	4.0	5.0	5.0	4.5	5.0	3.5	2.5	3.0
23	8.0	6.5	7.5	6.0	5.5	5.5	5.0	4.5	5.0	4.0	3.5	3.5
24	9.0	8.0	8.5	6.0	5.5	6.0	4.5	4.5	4.5	4.0	2.5	3.0
25	9.5	8.5	9.0	5.0	4.5	5.0	4.5	4.0	4.5	3.5	3.0	3.0
26	9.5	9.0	9.5	5.5	5.0	5.5	5.5	4.5	5.0	4.0	3.5	4.0
27	9.5	9.0	9.0	6.0	5.5	5.5	4.5	3.5	4.0	4.5	3.5	4.0
28	8.5	7.5	8.0	5.5	5.5	5.5	4.0	3.0	3.5	4.5	4.0	4.0
29	7.5	7.0	7.5	5.5	5.0	5.5	4.5	4.0	4.5	4.5	4.0	4.5
30	7.5	7.5	7.5	5.0	4.5	5.0	4.0	3.5	4.0	4.5	4.0	4.5
31	8.0	7.5	8.0	---	---	---	4.5	3.5	4.0	4.0	3.5	4.0
MONTH	10.0	6.0	8.0	8.0	4.0	6.0	5.5	3.0	4.0	5.0	.0	3.0

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.0	4.0	5.5	4.5	5.0	8.5	5.0	7.0	7.5	6.5	7.0
2	5.0	4.0	4.5	5.5	4.5	5.0	8.0	5.5	7.0	7.0	6.0	6.5
3	5.0	4.5	4.5	6.0	5.0	5.5	7.0	6.0	6.0	10.5	6.5	8.0
4	5.0	4.0	4.5	6.5	5.0	6.0	7.5	5.5	6.0	11.5	7.5	9.0
5	5.0	4.0	4.5	6.0	5.5	6.0	6.0	5.0	5.5	12.0	7.5	9.5
6	5.0	3.5	4.5	5.5	4.5	5.0	7.0	5.0	6.0	13.0	8.5	10.5
7	5.0	3.5	4.5	5.5	4.0	5.0	8.0	6.0	7.0	12.5	8.5	10.5
8	5.5	4.5	5.0	5.5	4.5	5.0	7.0	5.5	6.5	13.0	9.0	10.5
9	5.0	4.0	4.5	5.5	5.0	5.5	7.5	4.5	6.0	12.5	9.0	10.5
10	6.0	5.0	5.5	6.0	5.0	5.5	6.5	5.5	6.0	13.0	8.5	10.5
11	5.5	4.5	5.0	5.5	5.0	5.5	6.0	4.5	5.0	13.0	9.0	11.0
12	5.0	4.0	4.5	6.0	5.5	5.5	7.0	4.5	5.5	11.0	9.5	10.0
13	5.0	4.5	5.0	5.5	5.0	5.5	8.0	4.5	6.0	11.5	8.5	10.0
14	5.0	4.0	4.5	5.5	4.5	5.0	9.0	5.0	7.0	11.0	9.5	10.0
15	5.0	4.5	4.5	5.5	4.5	5.0	9.0	6.0	7.5	11.5	9.5	10.5
16	4.5	4.0	4.5	5.5	4.5	5.0	9.0	6.0	7.5	12.0	8.5	10.0
17	5.0	3.5	4.5	5.5	5.0	5.5	7.5	5.5	6.5	11.5	7.0	9.5
18	5.0	3.5	4.0	5.0	4.0	4.5	6.0	4.5	5.0	11.5	7.5	9.5
19	5.0	4.0	4.5	5.0	4.0	4.5	7.5	4.0	5.5	11.0	7.0	8.5
20	5.0	4.0	4.5	6.0	4.5	5.0	9.0	4.0	6.5	10.0	6.5	8.0
21	5.0	4.5	4.5	6.0	4.0	5.0	9.5	5.5	7.5	11.5	6.5	9.0
22	4.5	3.0	4.0	6.0	3.5	5.0	10.0	6.5	8.0	12.0	7.5	9.5
23	4.0	3.0	3.5	5.5	5.0	5.5	9.5	7.0	8.0	11.5	8.0	10.0
24	3.5	3.0	3.5	7.0	4.5	5.5	9.5	6.5	8.0	10.5	9.0	9.5
25	3.5	2.0	2.5	6.0	4.0	5.0	9.0	6.0	7.5	10.0	8.5	9.5
26	3.5	2.0	3.0	6.0	4.5	5.5	10.5	6.0	8.5	8.5	8.0	8.0
27	4.0	3.0	4.0	6.5	4.0	5.0	11.5	7.0	9.0	8.5	7.5	8.0
28	4.5	3.5	4.5	6.5	3.5	5.0	10.0	8.0	9.0	10.0	7.5	9.0
29	---	---	---	7.0	3.5	5.0	10.0	7.0	8.5	12.0	7.5	10.0
30	---	---	---	7.5	4.0	5.5	8.5	7.0	8.0	10.0	8.5	9.0
31	---	---	---	8.0	4.5	6.5	---	---	---	9.0	8.0	8.5
MONTH	6.0	2.0	4.5	8.0	3.5	5.5	11.5	4.0	7.0	13.0	6.0	9.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	7.0	9.0	17.5	13.0	15.0	13.5	9.5	11.5	15.0	12.5	14.0
2	12.5	7.5	10.0	15.5	13.0	14.0	15.0	10.0	12.5	14.0	12.0	13.0
3	14.5	8.5	11.5	16.5	11.5	14.0	16.0	10.5	13.5	13.5	11.0	12.5
4	15.0	10.5	12.5	14.0	12.5	13.0	16.0	12.0	14.0	13.0	10.5	12.0
5	12.5	10.5	11.5	13.5	11.5	12.0	15.5	11.0	13.5	13.5	10.0	12.0
6	14.5	9.5	11.5	14.5	10.5	12.5	15.0	10.5	13.0	14.0	10.5	12.5
7	13.5	10.5	12.0	14.0	11.0	12.5	16.0	11.0	13.5	14.0	11.0	13.0
8	14.0	11.0	12.0	15.0	11.5	13.0	16.0	11.0	14.0	14.0	11.5	13.0
9	14.5	10.5	12.5	13.0	11.0	12.0	16.0	12.5	14.5	14.0	11.0	13.0
10	13.5	9.0	11.5	16.0	11.0	13.5	16.0	12.5	14.5	13.5	11.0	12.5
11	14.5	9.5	12.0	16.0	11.0	13.5	15.5	11.5	13.5	13.5	12.0	12.5
12	15.5	10.5	13.0	17.0	11.5	14.0	15.0	11.5	13.5	12.5	11.5	12.0
13	15.5	10.5	13.0	17.0	12.0	14.5	13.5	12.0	12.5	13.0	11.0	12.0
14	15.0	11.5	13.0	17.5	12.0	15.0	12.5	11.0	12.0	11.0	9.5	10.5
15	13.0	10.0	11.0	16.0	12.0	14.0	13.5	11.0	12.0	11.0	9.0	10.5
16	11.0	9.5	10.0	13.0	11.0	11.5	14.0	10.5	12.5	10.5	8.0	9.5
17	12.0	8.5	10.5	11.0	10.5	10.5	14.0	9.5	12.0	10.5	8.0	9.5
18	14.0	8.5	11.5	10.5	10.0	10.5	14.5	10.0	12.5	11.0	8.5	10.0
19	15.0	9.5	12.5	14.0	9.5	11.5	15.0	10.5	13.0	11.5	9.0	10.5
20	12.0	10.5	11.5	13.5	10.0	11.5	14.0	11.0	13.0	11.0	9.0	10.5
21	11.5	10.0	10.5	13.0	10.0	12.0	14.0	9.5	12.0	11.5	9.0	11.0
22	14.5	9.5	11.5	14.0	11.0	12.0	14.0	10.5	12.5	12.0	9.5	11.0
23	13.5	9.5	11.5	14.5	10.5	12.5	15.0	11.5	13.5	12.0	9.5	11.0
24	15.5	10.0	12.5	15.0	11.5	13.0	15.0	11.0	13.0	11.5	9.5	11.0
25	16.5	11.0	13.5	15.0	11.5	13.0	14.5	11.0	13.0	11.0	10.5	10.5
26	17.0	11.5	14.0	15.5	11.0	13.0	15.0	11.5	13.5	11.0	9.5	10.0
27	17.0	11.5	14.5	15.5	11.5	13.5	15.0	11.5	13.5	9.5	7.0	9.0
28	17.5	11.5	14.5	15.5	11.5	13.5	15.0	12.0	13.5	10.0	7.5	9.0
29	16.0	12.5	14.5	15.5	11.5	13.5	14.5	11.0	13.0	10.5	8.0	9.5
30	15.0	12.5	14.0	13.5	11.5	12.5	15.0	11.5	13.5	10.5	8.5	10.0
31	---	---	---	14.5	10.5	12.5	15.5	12.5	14.0	---	---	---
MONTH	17.5	7.0	12.0	17.5	9.5	13.0	16.0	9.5	13.0	15.0	7.0	11.0
YEAR	17.5	.0	8.0									

14178700 EAST HUMBUG CREEK NEAR DETROIT, OR

LOCATION.--Lat 44°47'57", long 122°03'28", in NW 1/4 NE 1/4 sec.15, T.9 S., R.6 E., Marion County, Hydrologic Unit 17090005, in Willamette National Forest, on left bank 1.6 mi upstream from confluence with Humbug Creek, and 6.3 mi northeast of Detroit.

DRAINAGE AREA.--7.32 mi².

PERIOD OF RECORD.--August 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,050 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--9 years, 38.5 ft³/s, 71.42 in/yr, 27,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft³/s Dec. 25, 1980, from rating curve extended above 450 ft³/s, gage height, 4.42 ft; minimum discharge, 1.6 ft³/s Sept. 30, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 20	1830	285	3.43	Nov. 27	0830	*462	*3.72
Nov. 23	2300	316	3.49	Jan. 31	2100	361	3.57

Minimum discharge, 1.6 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	22	60	46	288	28	34	26	19	4.9	3.8	2.4
2	8.5	14	49	43	191	44	39	30	15	4.8	3.6	2.4
3	7.4	11	41	64	127	88	38	36	12	4.7	3.6	2.4
4	6.5	8.8	36	64	88	93	35	30	11	4.7	3.5	2.4
5	5.8	8.4	33	48	74	83	33	27	11	4.8	3.5	2.4
6	5.4	9.9	31	39	70	73	32	25	9.7	4.7	3.4	2.3
7	5.0	16	29	33	68	59	34	23	9.1	4.6	3.4	2.3
8	4.7	19	26	29	65	50	48	21	9.0	4.5	3.3	2.3
9	4.5	21	24	26	65	47	41	19	8.7	4.5	3.2	2.3
10	4.2	21	22	23	61	51	42	18	8.4	4.4	3.2	2.3
11	4.0	16	21	23	68	55	52	17	8.1	4.2	3.2	2.4
12	3.9	16	20	29	61	108	52	26	7.8	4.0	3.2	2.5
13	3.8	14	30	28	99	125	48	21	7.5	3.9	3.7	2.5
14	3.7	17	45	24	96	121	43	18	7.4	3.8	3.6	2.5
15	3.7	17	41	21	90	89	42	17	7.4	3.8	3.4	2.7
16	3.6	20	33	21	85	67	42	16	7.0	3.8	3.2	2.6
17	3.7	55	28	21	77	68	43	15	6.9	4.7	3.1	2.4
18	4.0	80	25	21	64	70	40	14	6.8	9.5	3.0	2.3
19	3.6	103	23	18	52	58	36	14	6.5	7.5	2.9	2.3
20	3.4	186	21	18	45	49	33	13	6.5	8.3	2.9	2.2
21	3.4	199	20	18	43	44	32	12	7.5	6.3	2.8	2.2
22	3.3	129	30	18	40	40	33	12	6.7	5.2	2.8	2.0
23	3.3	199	73	18	35	37	34	11	6.1	4.9	2.7	2.0
24	3.3	277	51	30	32	35	33	11	5.8	5.4	2.7	2.0
25	3.3	145	41	59	29	33	30	11	5.6	4.7	2.7	2.1
26	4.0	171	46	124	26	31	29	11	5.4	4.4	2.7	2.5
27	5.7	356	41	126	25	29	30	9.9	5.3	4.2	2.6	2.3
28	4.1	243	35	103	23	27	31	9.7	5.2	4.1	2.6	2.1
29	4.9	126	39	74	---	26	28	9.3	5.1	4.0	2.6	2.1
30	28	80	40	60	---	25	27	12	5.1	3.9	2.5	1.9
31	40	---	36	154	---	28	---	17	---	3.8	2.5	---
TOTAL	202.7	2600.1	1090	1423	2087	1781	1114	551.9	242.6	151.0	95.9	69.1
MEAN	6.54	86.7	35.2	45.9	74.5	57.5	37.1	17.8	8.09	4.87	3.09	2.30
MAX	40	356	73	154	288	125	52	36	19	9.5	3.8	2.7
MIN	3.3	8.4	20	18	23	25	27	9.3	5.1	3.8	2.5	1.9
AC-FT	402	5160	2160	2820	4140	3530	2210	1090	481	300	190	137
CFSM	.89	11.8	4.80	6.27	10.2	7.85	5.07	2.43	1.10	.67	.42	.31
IN.	1.03	13.21	5.54	7.23	10.61	9.05	5.66	2.80	1.23	.77	.49	.35

CAL YR 1986 TOTAL 14608.0 MEAN 40.0 MAX 813 MIN 2.1 AC-FT 28970 CFSM 5.47 IN. 74.24
WTR YR 1987 TOTAL 11408.3 MEAN 31.3 MAX 356 MIN 1.9 AC-FT 22630 CFSM 4.27 IN. 57.98

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°45'10", long 122°07'40", in SE 1/4 NE 1/4 sec.36, T.9 S., R.5 E., Marion County, Hydrologic Unit 17090005, in Willamette National Forest, on left bank 600 ft upstream from Canyon Creek, 1.5 mi northeast of Detroit, and at mile 2.0.

DRAINAGE AREA.--108 mi², at measuring cable 0.2 mi downstream from gage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1932 to September 1987 (discontinued). Monthly discharge only June 1932, published in WSP 1318. Published as "above Canyon Creek, near Detroit" from October 1952 to September 1984.

REVISED RECORDS.--WSP 1044: 1943(M). WSP 1248: 1947. WRD OR-85-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,573.95 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1952, at site 0.2 mi downstream at datum 13.46 ft lower.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversion upstream from station. All records given herein are for measuring site 0.2 mi downstream from gage.

AVERAGE DISCHARGE.--55 years, 576 ft³/s, 72.43 in/yr, 417,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s Dec. 22, 1964, gage height, 14.55 ft; minimum discharge, 87 ft³/s Sept. 2, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 27	1030	*4,030	*7.51	No other peak greater than base discharge.			

Minimum discharge, 100 ft³/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	422	917	635	2580	394	385	614	371	172	143	111
2	217	310	762	663	1980	446	437	534	320	170	140	110
3	195	257	654	790	1530	640	469	537	320	164	136	111
4	184	226	582	791	1170	770	445	517	361	164	133	110
5	184	212	539	655	967	803	421	543	350	167	132	109
6	181	226	499	560	860	824	418	646	308	162	132	109
7	167	326	459	496	811	720	417	708	305	158	131	109
8	156	374	423	448	773	644	553	684	297	155	129	108
9	150	375	395	411	755	616	495	622	287	155	126	107
10	144	349	373	388	718	625	517	552	276	154	126	107
11	139	301	358	375	754	636	620	521	263	150	125	108
12	136	282	347	387	709	994	591	816	274	148	125	109
13	134	263	407	385	963	1310	542	667	269	147	132	109
14	132	298	500	374	1050	1330	512	549	264	144	134	110
15	132	284	474	347	984	1070	515	493	276	142	131	116
16	133	343	427	324	928	864	562	440	237	142	126	112
17	133	875	399	310	914	850	611	388	221	153	124	110
18	138	810	377	299	810	841	564	357	212	274	122	108
19	133	1140	361	288	713	751	494	328	212	199	120	107
20	130	1720	338	276	637	666	448	303	221	179	120	106
21	128	2070	324	272	587	601	437	290	253	196	119	105
22	126	1680	374	268	552	546	477	280	228	192	118	104
23	125	2010	608	271	518	517	525	283	210	169	116	103
24	123	2390	533	416	482	482	531	304	202	208	115	103
25	124	1650	486	723	446	454	510	306	203	237	115	104
26	133	1770	536	1210	416	430	489	284	201	181	114	110
27	195	3320	505	1330	398	406	578	271	194	165	114	108
28	168	2730	462	1210	380	385	706	262	186	156	113	105
29	165	1700	481	972	---	371	635	258	180	151	113	104
30	409	1180	477	820	---	359	637	312	179	149	112	102
31	614	---	451	1350	---	360	---	418	---	146	111	---
TOTAL	5478	29893	14828	18044	24385	20705	15541	14087	7680	5249	3847	3234
MEAN	177	996	478	582	871	668	518	454	256	169	124	108
MAX	614	3320	917	1350	2580	1330	706	816	371	274	143	116
MIN	123	212	324	268	380	359	385	258	179	142	111	102
AC-FT	10870	59290	29410	35790	48370	41070	30830	27940	15230	10410	7630	6410
CFSM	1.67	9.40	4.51	5.49	8.22	6.30	4.89	4.29	2.42	1.60	1.17	1.02
IN.	1.92	10.49	5.20	6.33	8.56	7.27	5.45	4.94	2.70	1.84	1.35	1.13

CAL YR 1986 TOTAL 210893 MEAN 578 MAX 8820 MIN 115 AC-FT 418300 CFSM 5.45 IN. 74.01
WTR YR 1987 TOTAL 162971 MEAN 446 MAX 3320 MIN 102 AC-FT 323300 CFSM 4.21 IN. 57.19

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1950 to July 1961, January 1962 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder December 1950 to July 1961 and since January 1962.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 18.0°C July 27, 1973; minimum, 0.0°C on several days in 1972, 1973, 1977-79, 1985.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 17.5°C July 13; minimum, 1.0°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	8.0	8.5	8.0	7.0	7.5	---	---	---	4.5	3.5	4.0
2	8.5	7.5	8.0	7.0	6.0	6.5	---	---	---	4.5	4.0	4.5
3	8.5	7.0	8.0	7.0	5.5	6.5	---	---	---	5.0	4.5	4.5
4	9.5	7.5	8.5	7.0	5.5	6.5	---	---	---	5.0	4.5	5.0
5	9.5	7.5	8.5	7.5	6.5	7.0	5.5	4.5	5.0	5.0	4.5	4.5
6	9.5	7.5	8.5	7.0	6.5	7.0	5.5	4.5	5.0	4.0	3.5	4.0
7	9.5	8.0	8.5	6.5	5.0	5.5	4.5	4.0	4.0	3.5	3.0	3.0
8	9.0	7.5	8.5	6.5	5.5	6.0	4.0	4.0	4.0	3.0	2.5	3.0
9	9.0	7.5	8.5	6.5	6.0	6.0	4.0	3.0	3.5	3.0	2.5	2.5
10	8.5	7.0	8.0	5.5	4.5	5.0	4.0	3.5	4.0	3.5	3.0	3.0
11	8.5	7.0	7.5	5.0	5.0	5.5	4.5	3.5	4.0	3.5	3.0	3.5
12	7.5	6.0	7.0	6.0	5.0	5.5	5.0	4.5	4.5	4.0	3.5	4.0
13	7.5	6.0	6.5	6.0	4.5	5.5	4.5	4.5	4.5	3.5	3.0	3.5
14	7.5	6.0	7.0	6.5	6.0	6.5	5.5	4.5	5.0	3.5	3.0	3.0
15	7.5	6.0	7.0	6.5	6.0	6.5	5.0	4.0	4.5	3.0	2.0	2.5
16	8.0	6.0	7.0	6.0	5.5	6.0	4.0	3.5	4.0	2.0	1.0	1.5
17	8.0	7.5	8.0	6.0	5.5	6.0	4.0	3.5	3.5	2.5	1.5	1.5
18	8.5	8.0	8.0	6.5	5.5	6.0	3.5	3.0	3.5	3.0	2.5	2.5
19	8.0	7.0	7.5	6.5	6.0	6.5	4.5	4.0	4.0	3.0	2.5	3.0
20	7.5	6.0	7.0	7.0	6.0	6.5	4.0	3.5	4.0	2.5	1.5	2.0
21	7.5	6.5	7.0	6.5	4.5	6.0	4.5	4.0	4.5	2.5	2.0	2.0
22	7.5	6.5	7.0	5.5	4.5	5.0	5.0	4.0	4.5	3.0	2.5	3.0
23	8.0	6.5	7.0	6.5	5.5	6.0	5.0	4.5	5.0	3.5	3.0	3.5
24	8.5	7.5	8.0	6.5	5.5	6.0	5.0	4.5	4.5	3.5	2.0	3.0
25	9.5	8.5	9.0	5.5	5.0	5.5	5.0	4.5	4.5	4.5	3.0	3.5
26	9.5	9.0	9.5	6.0	5.0	5.5	5.0	4.5	5.0	5.0	4.5	4.5
27	9.5	8.5	9.0	6.0	5.5	6.0	5.0	4.0	4.5	5.0	4.5	5.0
28	8.5	7.5	8.0	6.0	5.5	5.5	4.5	3.5	4.0	4.5	4.5	4.5
29	7.5	7.0	7.5	---	---	---	5.0	4.5	5.0	4.5	4.0	4.5
30	8.0	7.5	7.5	---	---	---	5.0	4.0	4.5	4.5	4.0	4.0
31	8.5	7.5	8.0	---	---	---	4.5	4.0	4.5	4.5	3.0	4.0
MONTH	9.5	6.0	8.0	---	---	---	---	---	---	5.0	1.0	3.5

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.5	4.5	5.0	4.0	4.5	8.0	5.0	6.5	7.0	6.0	6.5
2	5.0	4.5	5.0	5.0	4.5	4.5	8.0	5.5	6.5	6.5	5.5	6.0
3	5.5	5.0	5.5	6.0	5.0	5.5	6.5	6.0	6.0	9.5	6.0	7.5
4	5.5	5.0	5.0	6.0	5.0	5.5	7.0	5.5	6.0	10.5	6.5	8.5
5	---	---	---	6.0	5.5	5.5	6.5	5.0	5.5	11.0	7.0	9.0
6	---	---	---	5.5	5.0	5.0	7.0	5.5	6.0	12.0	7.5	9.5
7	---	---	---	5.5	4.0	4.5	8.0	6.0	7.0	11.5	8.0	9.5
8	---	---	---	5.5	4.5	5.0	7.0	5.5	6.5	11.5	8.0	9.5
9	---	---	---	6.0	5.0	5.5	7.5	4.5	6.0	11.5	7.5	9.5
10	---	---	---	6.0	5.0	5.5	6.5	5.5	6.0	12.0	7.5	9.5
11	---	---	---	5.5	5.0	5.5	5.5	4.5	5.0	12.0	8.0	9.5
12	---	---	---	6.0	5.5	5.5	7.0	4.5	5.5	9.5	8.0	9.0
13	5.5	4.5	5.0	6.0	5.5	6.0	7.5	4.5	6.0	10.0	7.0	8.5
14	5.5	4.0	5.0	6.0	5.5	6.0	8.5	5.0	6.5	10.0	8.0	9.0
15	5.5	4.5	5.0	6.0	5.0	5.5	9.0	6.0	7.5	11.0	8.5	9.5
16	5.5	4.5	5.0	6.0	4.5	5.5	8.5	6.0	7.5	11.0	7.5	9.0
17	5.5	4.0	5.0	6.0	5.0	5.5	7.0	5.5	6.5	11.0	7.0	9.0
18	5.0	3.5	4.5	5.0	4.0	4.5	6.0	4.5	5.0	10.5	7.0	8.5
19	5.5	4.5	5.0	5.5	4.0	4.5	7.0	4.0	5.5	10.0	6.5	8.0
20	5.5	4.5	5.0	6.0	4.0	5.0	8.0	4.0	6.0	9.5	6.0	8.0
21	5.0	4.5	5.0	6.0	4.0	5.0	9.5	5.5	7.0	10.5	6.5	8.5
22	4.5	3.5	4.0	6.0	3.5	5.0	9.5	6.0	7.5	11.0	7.0	9.0
23	4.5	3.5	4.0	5.5	5.0	5.5	9.5	6.5	8.0	11.0	7.5	9.5
24	4.0	3.0	3.5	6.5	4.5	5.5	9.0	6.0	7.5	10.0	8.0	9.0
25	3.5	2.0	3.0	6.0	4.0	5.0	9.0	5.5	7.5	10.0	8.0	9.0
26	4.0	2.0	3.0	5.5	4.5	5.0	10.0	6.0	8.0	8.5	7.5	8.0
27	4.5	3.0	4.0	6.0	4.0	5.0	10.5	7.0	8.5	9.0	7.5	8.0
28	5.0	3.5	4.5	6.0	3.5	4.5	9.5	7.5	8.0	10.0	7.5	8.5
29	---	---	---	6.0	3.0	4.5	9.5	6.5	8.0	11.5	8.0	9.5
30	---	---	---	7.0	3.5	5.0	8.0	7.0	7.5	10.0	8.0	8.5
31	---	---	---	7.5	4.5	6.0	---	---	---	8.5	7.5	8.0
MONTH	---	---	---	7.5	3.0	5.0	10.5	4.0	6.5	12.0	5.5	8.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	7.0	8.5	17.0	13.0	15.0	13.0	10.5	11.5	15.0	13.5	14.0
2	12.0	7.0	9.5	15.5	13.0	14.0	14.0	8.5	11.5	14.5	12.0	13.5
3	13.0	8.0	10.5	15.5	11.5	13.5	13.0	9.5	11.0	14.0	11.0	12.5
4	14.0	9.5	11.5	15.0	12.5	13.0	14.0	9.0	11.5	13.5	11.0	12.0
5	11.5	9.5	10.5	13.5	11.0	12.5	15.0	10.0	12.5	14.0	10.5	12.0
6	13.5	8.5	11.0	14.0	11.0	12.5	14.[illegible]	10.0	12.0	14.0	11.0	12.5
7	13.0	9.5	11.5	13.5	11.0	12.5	14.5	11.0	13.0	14.5	11.5	13.0
8	12.5	10.0	11.0	15.0	11.5	13.5	15.5	11.0	13.5	14.5	12.0	13.5
9	14.0	10.0	11.5	13.5	11.0	12.0	16.0	12.0	14.5	14.0	11.5	13.0
10	13.0	8.5	11.0	15.5	11.5	13.5	15.5	8.0	13.5	14.0	11.5	12.5
11	14.0	9.0	11.5	15.5	11.5	14.0	14.5	7.0	11.5	14.5	12.5	13.0
12	14.5	10.0	12.0	16.0	12.0	14.5	15.0	8.0	13.0	13.0	12.5	12.5
13	14.5	10.0	12.5	17.5	12.5	15.0	14.0	10.0	12.5	13.5	11.5	12.5
14	14.0	10.5	12.5	17.0	13.0	15.0	12.0	9.5	11.0	11.5	10.5	11.0
15	12.0	10.5	11.0	16.0	13.0	14.5	13.5	11.0	12.0	12.0	10.5	11.0
16	11.0	9.0	10.0	14.0	10.5	11.5	14.5	10.5	12.5	11.0	7.5	9.5
17	12.0	8.5	10.0	11.5	8.0	10.5	14.0	10.5	12.5	11.0	8.0	9.5
18	13.5	8.5	11.0	10.5	5.5	9.5	14.5	11.0	13.0	11.5	9.0	10.0
19	14.0	9.5	12.0	14.0	10.0	12.0	15.0	11.5	13.0	11.5	9.0	10.5
20	13.0	10.5	11.0	13.5	11.0	12.5	14.5	11.0	13.0	11.5	9.5	10.5
21	11.0	9.5	10.5	13.5	11.0	12.5	14.0	10.5	12.5	12.0	10.0	11.0
22	13.5	9.0	11.5	13.0	11.5	12.0	13.5	11.0	12.5	12.0	10.0	11.0
23	13.0	9.5	11.5	14.0	10.5	12.5	15.0	12.5	13.5	12.0	10.0	11.0
24	14.5	9.5	12.5	15.5	12.0	13.5	15.0	11.5	13.5	12.0	10.5	11.0
25	15.5	10.5	13.5	14.5	11.0	13.0	14.5	11.5	13.0	11.0	11.0	11.0
26	16.0	11.5	14.0	14.5	10.0	13.0	15.0	12.0	13.5	11.5	10.0	10.5
27	16.0	11.5	14.0	14.5	8.5	12.5	15.0	12.0	13.5	10.0	8.0	9.0
28	16.5	11.5	14.5	15.0	10.0	13.0	15.0	12.0	13.5	10.5	8.0	9.0
29	15.5	12.5	14.5	14.5	10.5	13.0	14.5	11.5	13.0	10.5	8.5	9.5
30	15.0	12.0	14.0	13.5	10.5	12.5	15.0	12.0	13.5	10.5	9.0	10.0
31	---	---	---	14.0	9.5	12.0	16.0	13.0	14.0	---	---	---
MONTH	16.5	7.0	11.5	17.5	5.5	13.0	16.0	7.0	12.5	15.0	7.5	11.5

14180500 DETROIT LAKE NEAR DETROIT, OR

LOCATION.--Lat 44°43'20", long 122°14'55", in SW 1/4 NW 1/4 sec.7, T.10 S., R.5 E., Marion County, Hydrologic Unit 17090005, in control house near right abutment of Detroit Dam on North Santiam River, 4.9 mi west of Detroit, and at mile 60.9.

DRAINAGE AREA.--437 mi^2.

PERIOD OF RECORD.--January 1953 to current year. Prior to October 1971, published as Detroit Reservoir near Detroit.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with six 42-ft by 28-ft control gates. Length of dam is 1,580 ft, built by Corps of Engineers. Storage began in January 1953. Total capacity is 455,100 acre-ft and usable capacity is 340,100 acre-ft between elevations 1,425.0 ft, proposed lower limit of operation, and 1,569.0 ft, top of spillway gates. Reservoir used for flood control, power development, irrigation, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 457,900 acre-ft July 13, 1972, elevation, 1,569.79 ft; minimum contents, 115,500 acre-ft Jan. 30, 1969, elevation, 1,425.37 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 438,400 acre-ft June 16, elevation, 1,564.18 ft; minimum contents, 152,800 acre-ft Dec. 18, elevation, 1,449.06 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,425	115,000	1,480	210,900	1,530	331,500
1,430	122,200	1,490	232,000	1,540	360,200
1,440	137,700	1,500	254,600	1,550	390,900
1,450	154,400	1,510	278,700	1,560	424,000
1,460	172,200	1,520	304,400	1,570	458,600

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1531.67	1494.65	1489.02	1451.89	1477.09	1501.33	1531.72	1553.33	1563.25	1562.95	1559.90	1552.57
2	1530.29	1493.32	1483.48	1452.17	1481.75	1502.00	1532.42	1553.98	1563.43	1562.86	1559.73	1552.26
3	1529.04	1491.89	1478.50	1452.13	1484.03	1503.33	1533.14	1554.67	1563.55	1562.70	1559.56	1551.95
4	1527.99	1490.44	1475.29	1452.05	1483.85	1505.09	1533.83	1555.25	1563.64	1562.63	1559.41	1551.63
5	1526.91	1488.93	1471.91	1451.21	1482.96	1506.74	1534.39	1555.84	1563.81	1562.48	1559.21	1551.26
6	1525.80	1487.61	1468.23	1450.40	1481.99	1508.58	1535.00	1556.48	1563.85	1562.34	1559.07	1550.92
7	1524.67	1486.64	1464.71	1449.56	1481.87	1510.08	1535.59	1557.17	1563.93	1562.18	1558.89	1550.59
8	1523.47	1485.66	1462.64	1449.87	1481.68	1511.25	1536.62	1557.87	1563.93	1562.03	1558.69	1550.36
9	1522.27	1484.68	1461.01	1450.13	1481.38	1512.33	1537.39	1558.45	1563.99	1561.87	1558.46	1549.99
10	1521.04	1483.58	1459.33	1450.59	1482.75	1513.45	1538.31	1558.89	1564.02	1561.77	1558.26	1549.63
11	1519.64	1481.72	1457.57	1450.97	1484.42	1514.60	1539.45	1559.30	1564.02	1561.61	1558.09	1549.05
12	1518.33	1480.03	1455.86	1451.60	1485.96	1516.91	1540.42	1560.19	1564.05	1561.44	1557.88	1548.32
13	1517.02	1478.22	1454.31	1452.04	1487.88	1520.14	1541.25	1560.83	1564.02	1561.27	1557.70	1547.60
14	1515.77	1476.64	1453.11	1452.23	1489.11	1522.41	1541.99	1561.32	1564.01	1561.08	1557.54	1546.87
15	1514.55	1474.75	1451.92	1452.17	1489.93	1523.81	1542.74	1561.71	1564.04	1560.93	1557.33	1546.19
16	1513.23	1473.56	1450.46	1452.14	1490.63	1524.65	1543.48	1562.04	1564.01	1560.74	1557.12	1545.45
17	1512.01	1474.46	1449.35	1452.24	1491.11	1525.92	1544.36	1562.23	1563.93	1560.67	1556.85	1544.49
18	1510.66	1474.83	1449.35	1452.31	1492.39	1526.58	1545.18	1562.43	1563.89	1560.85	1556.64	1543.55
19	1509.38	1475.29	1449.61	1452.47	1493.83	1526.94	1545.78	1562.55	1563.82	1560.84	1556.40	1542.61
20	1507.78	1477.27	1449.59	1452.59	1495.10	1527.07	1546.35	1562.68	1563.78	1560.76	1556.18	1541.65
21	1506.47	1480.57	1449.54	1452.69	1496.15	1526.99	1546.89	1562.73	1563.83	1560.79	1555.91	1540.68
22	1505.05	1481.57	1449.83	1452.70	1497.19	1526.81	1547.50	1562.81	1563.79	1560.82	1555.63	1539.70
23	1503.57	1482.93	1451.47	1453.00	1498.07	1527.25	1548.14	1562.78	1563.71	1560.77	1555.33	1538.75
24	1502.21	1483.82	1452.71	1454.08	1498.81	1527.96	1548.69	1562.59	1563.65	1560.72	1555.18	1537.68
25	1500.99	1481.07	1452.33	1456.48	1499.53	1528.61	1549.33	1562.62	1563.59	1560.70	1554.89	1536.68
26	1499.65	1479.93	1452.37	1459.35	1500.07	1529.29	1549.82	1562.65	1563.50	1560.69	1554.54	1535.71
27	1498.62	1492.16	1452.25	1461.67	1500.56	1529.83	1550.40	1562.54	1563.40	1560.58	1554.24	1534.62
28	1497.45	1501.07	1451.65	1463.52	1500.92	1530.20	1551.18	1562.54	1563.29	1560.49	1553.89	1533.63
29	1496.28	1499.47	1451.36	1464.42	---	1530.63	1551.87	1562.54	1563.23	1560.37	1553.59	1532.53
30	1495.77	1494.85	1451.24	1464.47	---	1530.95	1552.59	1562.68	1563.12	1560.17	1553.24	1531.34
31	1495.58	---	1450.81	1467.32	---	1531.31	---	1562.98	---	1560.03	1552.89	---
MAX	1531.67	1501.07	1489.02	1467.32	1500.92	1531.31	1552.59	1562.98	1564.05	1562.95	1559.90	1552.57
MIN	1495.58	1473.56	1449.35	1449.56	1477.09	1501.33	1531.72	1553.33	1563.12	1560.03	1552.89	1531.34
(†)	244400	242800	155800	186000	256800	335200	399200	434200	434700	424100	400200	335300
(‡)	-95600	-1600	-87000	+30200	+70800	+78400	+64000	+35000	+500	-10600	-23900	-64900

CAL YR 1986 MAX 1564.11 MIN 1449.35 AC-FT‡ -1800
WTR YR 1987 MAX 1564.05 MIN 1449.35 AC-FT‡ -4700

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR

LOCATION.--Lat 44°45'10", long 122°17'50", in NE 1/4 NE 1/4 sec.34, T.9 S., R.4 E., Linn County, Hydrologic Unit 17090005, on left bank 0.1 mi downstream from Little Sardine Creek, 0.8 mi downstream from Big Cliff Dam, 2.1 mi east of Niagara, and at mile 57.3.

DRAINAGE AREA.--453 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1908 to January 1920, October 1921 to March 1922, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "North Fork of Santiam River near Niagara" prior to October 1913, and as "above Mayflower Creek, near Detroit" October 1938 to September 1952.

REVISED RECORDS.--WSP 1268: 1914-18, 1920. WSP 1718: 1953-54.

GAGE.--Water-stage recorder. Datum of gage is 1,093.78 ft above National Geodetic Vertical Datum of 1929 (Federal Highway Administration bench mark). See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since 1953 by Detroit Lake (station 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--59 years (water years 1910-19, 1939-87), 2,332 ft³/s, 69.91 in/yr, 1,690,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,200 ft³/s Nov. 22, 1909, gage height, 16.4 ft, from floodmark, site and datum then in use, from rating curve extended above 35,000 ft³/s; minimum discharge, 19 ft³/s Aug. 21, 1963; minimum daily, 395 ft³/s Mar. 25, 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s Dec. 1, gage height, 7.81 ft; minimum discharge, 704 ft³/s Jan. 10; minimum daily, 885 ft³/s June 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3130	2730	10300	1870	1140	1040	1010	990	1010	964	937	1100
2	3030	2650	9130	2620	3280	1030	988	971	957	910	941	1100
3	2820	2640	7860	3230	3910	1050	1010	980	944	913	934	1060
4	2290	2680	5650	3250	4950	1050	1010	990	978	911	929	1070
5	2380	2680	5620	3200	4960	1040	1010	1010	994	913	931	1060
6	2320	2670	5680	3170	4520	1040	1010	998	988	927	937	1050
7	2510	2700	5320	2640	3360	1020	1010	1010	993	918	941	1060
8	2430	2710	3970	1600	3340	1020	1000	983	978	910	953	1050
9	2390	2600	3000	1360	3250	1010	987	990	957	946	961	1070
10	2370	2660	3160	1070	1370	1020	999	977	926	915	958	1090
11	2450	3210	3090	1050	1070	1030	1010	991	940	912	957	1400
12	2420	3200	3000	1060	1070	998	995	1040	924	908	931	1740
13	2410	3070	3140	1220	1910	1020	998	1000	919	910	933	1780
14	2420	3100	3150	1310	3000	2400	1000	991	917	913	935	1790
15	2240	3060	3170	1420	3050	2380	995	977	907	913	933	1690
16	2240	3120	3040	1380	2960	2260	979	990	898	907	939	1700
17	2320	3220	2530	1060	3050	1870	985	971	988	915	998	2040
18	2370	3160	1520	1100	1770	2620	983	969	904	926	979	2050
19	2410	4250	1230	1100	1010	2560	986	970	903	925	986	2030
20	2430	5390	1420	1050	981	2640	977	973	907	922	1020	2030
21	2480	4950	1410	970	1030	2540	967	962	917	922	1000	2050
22	2350	5940	1310	938	1040	2420	971	967	907	914	1010	2060
23	2330	5900	1060	950	1040	1680	972	1120	911	913	988	2050
24	2320	7100	1190	948	1020	1020	996	1480	906	910	1000	2050
25	2140	8690	2150	964	980	1010	976	1050	885	907	991	2060
26	2150	7760	2180	2630	968	994	995	982	910	902	1070	2100
27	2180	1030	2200	3330	1040	987	1000	1400	908	918	1060	2080
28	2170	1070	2210	3290	1010	988	993	988	909	921	1080	2100
29	2200	8730	2200	3250	---	998	992	1000	926	928	1100	2140
30	2150	10200	2160	3200	---	1010	990	1000	908	923	1090	2210
31	2220	---	2110	3000	---	996	---	992	---	929	1090	---
TOTAL	74070	122870	105160	59230	62079	44741	29794	31712	28019	28465	30512	49860
MEAN	2389	4096	3392	1911	2217	1443	993	1023	934	918	984	1662
MAX	3130	10200	10300	3330	4960	2640	1010	1480	1010	964	1100	2210
MIN	2140	1030	1060	938	968	987	967	962	885	902	929	1050
AC-FT	146900	243700	208600	117500	123100	88740	59100	62900	55580	56460	60520	98900
MEAN†	834	4062	1978	2402	3491	2718	2069	1592	942	746	596	571
CFSM†	1.84	8.98	4.37	5.30	7.71	6.00	4.57	3.51	2.08	1.65	1.32	1.26
IN.†	2.12	10.02	5.03	6.11	8.03	6.92	6.00	4.05	2.32	1.90	1.52	1.41
AC-FT†	51300	242100	121600	147700	193900	167100	123100	97900	56080	45870	36620	34000

CAL YR 1986 TOTAL 864615 MEAN 2369 MAX 12200 MIN 959 AC-FT 1715000 MEAN† 2366 CFSM† 5.22 IN.† 70.90 AC-FT† 1713000
WTR YR 1987 TOTAL 666512 MEAN 1826 MAX 10300 MIN 885 AC-FT 1322000 MEAN† 1819 CFSM† 4.02 IN.† 54.51 AC-FT† 1317000

† Adjusted for change in contents of Detroit Lake.

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: January 1953 to current year.

INSTRUMENTATION.--Temperature recorder since January 1953.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 16.5°C July 28, 29, 1958; minimum, 1.0°C Jan. 30 to Feb. 4, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 13.5°C Oct. 10-12, 15, 19, 22; minimum, 3.5°C Jan. 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.5	12.5	12.5	12.5	12.5	12.5	7.5	7.0	7.5	5.5	5.0	5.5
2	13.0	12.5	12.5	12.5	12.0	12.5	7.5	7.0	7.5	5.0	5.0	5.0
3	13.0	12.5	12.5	12.5	12.0	12.5	7.5	7.0	7.5	5.5	5.0	5.5
4	13.0	12.5	12.5	12.5	12.0	12.0	7.0	7.0	7.0	5.5	5.0	5.5
5	13.0	12.5	12.5	12.5	12.0	12.0	7.0	7.0	7.0	5.0	5.0	5.0
6	13.0	12.5	13.0	12.0	11.5	11.5	7.0	6.5	7.0	5.0	5.0	5.0
7	13.0	12.5	13.0	11.5	11.5	11.5	7.0	6.5	6.5	5.0	5.0	5.0
8	13.0	13.0	13.0	11.5	11.5	11.5	7.0	6.5	6.5	5.0	4.5	4.5
9	13.0	13.0	13.0	11.5	11.0	11.5	6.5	6.5	6.5	4.5	4.5	4.5
10	13.5	12.5	13.0	11.5	11.0	11.5	6.5	6.5	6.5	4.5	4.5	4.5
11	13.5	13.0	13.5	11.5	11.0	11.0	6.5	6.5	6.5	4.5	4.5	4.5
12	13.5	13.0	13.0	11.0	11.0	11.0	6.5	6.0	6.5	4.5	4.5	4.5
13	13.0	13.0	13.0	11.0	11.0	11.0	6.5	6.0	6.5	4.5	4.5	4.5
14	13.0	13.0	13.0	11.0	10.5	10.5	6.5	6.0	6.0	4.5	4.5	4.5
15	13.5	13.0	13.0	10.5	10.0	10.5	6.0	6.0	6.0	4.5	4.0	4.5
16	13.0	13.0	13.0	10.5	10.0	10.5	6.0	6.0	6.0	4.0	4.0	4.0
17	13.0	13.0	13.0	10.5	10.0	10.0	6.0	6.0	6.0	4.0	3.5	4.0
18	13.0	13.0	13.0	10.0	10.0	10.0	6.0	5.5	6.0	4.0	4.0	4.0
19	13.5	13.0	13.0	10.0	9.0	9.5	6.0	5.5	6.0	4.0	4.0	4.0
20	13.0	13.0	13.0	10.0	9.0	9.5	5.5	5.5	5.5	4.0	4.0	4.0
21	13.0	13.0	13.0	9.5	9.0	9.0	5.5	5.5	5.5	4.0	4.0	4.0
22	13.5	13.0	13.0	9.0	8.5	8.5	6.0	5.5	6.0	4.0	4.0	4.0
23	13.0	13.0	13.0	9.0	8.5	8.5	6.0	5.5	5.5	4.0	4.0	4.0
24	13.0	13.0	13.0	8.5	8.0	8.0	5.5	5.5	5.5	4.0	4.0	4.0
25	13.0	13.0	13.0	8.5	8.0	8.0	5.5	5.5	5.5	4.0	4.0	4.0
26	13.0	13.0	13.0	8.0	8.0	8.0	5.5	5.5	5.5	4.0	4.0	4.0
27	13.0	13.0	13.0	8.0	7.5	8.0	5.5	5.5	5.5	4.5	4.0	4.0
28	13.0	13.0	13.0	7.5	7.5	7.5	5.5	5.5	5.5	4.0	4.0	4.0
29	13.0	13.0	13.0	7.5	7.0	7.5	5.5	5.5	5.5	4.0	4.0	4.0
30	13.0	12.5	13.0	7.5	7.0	7.5	5.5	5.5	5.5	4.0	4.0	4.0
31	12.5	12.5	12.5	---	---	---	5.5	5.5	5.5	4.0	4.0	4.0
MONTH	13.5	12.5	13.0	12.5	7.0	10.0	7.5	5.5	6.0	5.5	3.5	4.5

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.0	4.5	5.0	4.5	4.5	6.5	6.0	6.0	6.5	6.5	6.5
2	4.5	4.5	4.5	5.0	5.0	5.0	6.0	6.0	6.0	6.5	6.0	6.5
3	4.5	4.0	4.5	5.0	5.0	5.0	6.0	6.0	6.0	7.0	6.0	6.5
4	4.5	4.0	4.5	5.5	5.5	5.5	6.0	5.5	5.5	6.5	6.5	6.5
5	4.5	4.5	4.5	5.5	5.5	5.5	6.0	5.5	5.5	7.5	6.5	7.0
6	4.5	4.5	4.5	5.5	5.5	5.5	6.0	5.5	6.0	8.0	7.0	7.5
7	4.5	4.5	4.5	5.5	5.0	5.5	6.0	6.0	6.0	8.0	7.0	7.5
8	4.5	4.5	4.5	5.5	5.0	5.0	6.0	5.5	6.0	8.0	6.5	7.5
9	4.5	4.5	4.5	5.5	5.0	5.5	6.0	5.5	6.0	8.0	7.0	7.5
10	5.0	4.5	5.0	5.5	5.5	5.5	6.0	6.0	6.0	8.0	7.0	7.5
11	5.0	5.0	5.0	5.5	5.5	5.5	6.0	6.0	6.0	7.5	7.0	7.0
12	5.0	5.0	5.0	5.5	5.5	5.5	6.0	5.5	6.0	7.5	7.0	7.0
13	5.0	5.0	5.0	5.5	5.5	5.5	6.0	6.0	6.0	7.5	7.0	7.0
14	5.0	5.0	5.0	5.5	5.0	5.5	6.5	6.0	6.0	7.0	6.5	7.0
15	5.0	5.0	5.0	5.0	5.0	5.0	6.5	6.0	6.0	7.0	6.5	6.5
16	5.0	5.0	5.0	5.0	5.0	5.0	6.5	6.0	6.0	7.0	7.0	7.0
17	5.0	4.5	5.0	5.0	5.0	5.0	6.5	6.0	6.5	7.0	6.5	7.0
18	4.5	4.5	4.5	5.0	5.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0
19	5.0	4.5	4.5	5.0	5.0	5.0	6.0	6.0	6.0	7.5	7.0	7.0
20	5.0	4.5	4.5	5.0	5.0	5.0	6.0	6.0	6.0	8.0	7.0	7.5
21	5.0	4.5	5.0	6.0	5.0	5.5	6.5	6.0	6.0	7.5	7.0	7.0
22	5.0	5.0	5.0	6.0	5.5	5.5	6.5	6.0	6.5	7.5	7.0	7.0
23	5.0	4.5	4.5	6.0	5.0	5.5	7.0	6.5	6.5	7.5	7.0	7.5
24	4.5	4.5	4.5	5.5	5.0	5.0	6.5	6.5	6.5	7.5	7.0	7.0
25	4.5	4.5	4.5	5.0	5.0	5.0	7.0	6.5	6.5	7.0	6.5	7.0
26	4.5	4.0	4.5	5.5	5.0	5.0	7.0	6.5	7.0	7.0	6.5	6.5
27	4.5	4.5	4.5	5.5	5.5	5.5	7.0	6.5	7.0	6.5	6.5	6.5
28	4.5	4.5	4.5	5.5	5.0	5.5	7.0	6.5	6.5	7.0	6.5	6.5
29	---	---	---	5.5	5.0	5.5	7.0	6.5	7.0	7.0	6.5	7.0
30	---	---	---	6.0	5.5	6.0	7.0	6.5	6.5	7.5	7.0	7.0
31	---	---	---	6.5	6.0	6.0	---	---	---	7.0	7.0	7.0
MONTH	5.0	4.0	4.5	6.5	4.5	5.5	7.0	5.5	6.0	8.0	6.0	7.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.5	7.0	7.0	8.5	8.0	8.5	9.5	9.0	9.0	10.5	10.0	10.5
2	8.0	7.0	7.5	8.5	8.0	8.5	9.5	8.5	9.0	10.5	10.0	10.0
3	8.5	7.5	8.0	9.0	8.5	8.5	10.0	8.5	9.0	10.5	10.0	10.0
4	8.0	7.5	8.0	9.0	8.5	8.5	9.0	8.5	9.0	10.5	10.0	10.5
5	8.0	7.5	8.0	8.5	8.0	8.5	9.0	8.5	9.0	10.5	10.5	10.5
6	8.0	7.5	8.0	8.5	8.0	8.0	9.0	9.0	9.0	10.5	10.5	10.5
7	8.0	7.5	8.0	8.5	8.0	8.5	10.0	9.0	9.5	10.5	10.5	10.5
8	8.0	7.5	8.0	8.5	8.0	8.5	10.0	9.0	9.5	10.5	10.5	10.5
9	8.0	8.0	8.0	8.5	8.0	8.5	9.5	9.0	9.5	11.0	10.5	10.5
10	8.5	7.5	8.0	8.5	8.0	8.0	9.5	9.0	9.5	10.5	10.0	10.5
11	8.5	7.5	8.0	9.0	8.5	8.5	9.5	9.5	9.5	10.5	10.5	10.5
12	8.5	7.5	8.0	9.0	8.5	8.5	9.5	9.0	9.5	10.5	10.5	10.5
13	9.0	7.5	8.5	9.5	8.5	9.0	9.5	9.0	9.0	11.0	10.5	10.5
14	8.5	7.5	8.0	9.0	8.5	9.0	9.5	9.0	9.0	11.0	11.0	11.0
15	8.0	7.5	8.0	9.0	8.5	8.5	9.5	9.0	9.5	11.5	11.0	11.0
16	8.0	7.5	8.0	9.0	8.5	8.5	10.0	9.5	9.5	11.5	11.0	11.0
17	8.0	7.5	7.5	8.5	8.5	8.5	10.0	9.5	10.0	11.5	11.0	11.5
18	8.5	7.5	8.0	8.5	6.5	8.5	10.0	9.5	10.0	11.5	11.0	11.5
19	8.5	7.5	8.0	9.0	8.5	8.5	10.0	9.5	9.5	11.5	11.5	11.5
20	8.0	7.5	7.5	9.5	8.5	9.0	9.5	9.5	9.5	11.5	11.0	11.5
21	8.0	7.5	7.5	9.0	8.5	8.5	10.0	9.5	9.5	12.0	11.5	11.5
22	8.0	7.5	7.5	8.5	8.5	8.5	10.0	9.5	10.0	12.0	12.0	12.0
23	8.5	7.5	8.0	9.0	8.5	8.5	9.5	9.5	9.5	12.5	12.0	12.0
24	8.5	7.5	8.0	9.0	8.5	8.5	10.0	9.5	9.5	12.5	12.0	12.5
25	9.0	8.0	8.5	9.0	8.5	8.5	10.5	9.5	10.0	12.5	12.0	12.0
26	9.0	8.0	8.5	9.0	8.5	9.0	10.5	9.5	10.0	12.5	12.0	12.5
27	9.0	8.0	8.5	9.0	8.5	8.5	10.0	10.0	10.0	12.5	12.0	12.5
28	8.5	8.0	8.5	9.0	8.5	8.5	10.5	10.0	10.0	12.5	12.5	12.5
29	9.0	8.0	8.5	9.0	8.5	9.0	10.5	10.0	10.0	13.0	12.5	12.5
30	9.0	8.0	8.5	9.0	8.5	9.0	10.5	10.0	10.5	13.0	12.5	13.0
31	---	---	---	9.0	8.5	9.0	10.5	10.0	10.5	---	---	---
MONTH	9.0	7.0	8.0	9.5	8.0	8.5	10.5	8.5	9.5	13.0	10.0	11.5
YEAR	13.5	3.5	8.0									

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR

LOCATION.--Lat 44°47'30", long 122°34'40", in NW 1/4 sec.16, T.9 S., R.2 E., Marion County, Hydrologic Unit 17090005, on left bank 2.0 mi east of Mehama and at mile 2.0.

DRAINAGE AREA.--112 mi^2 at cableway 1.2 mi downstream where all discharge measurements are made.

PERIOD OF RECORD.--October 1931 to current year. Records for July to September 1924 and July to September 1931 at site 4 mi upstream not equivalent owing to difference in drainage areas.

REVISED RECORDS.--WSP 754: 1932. WSP 1218: 1934, 1936, 1949-50. WSP 1935: Maximum only, 1932-34, 1936, 1938, 1943, 1945-49, 1950(M,P), 1951-53(M), 1954(M,P), 1955(M), 1956(M,P), 1957(M), 1958-59(M,P). WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 655.41 ft above National Geodetic Vertical Datum of 1929. Prior to June 12, 1948, nonrecording gage at about same site and datum.

REMARKS.--No estimated daily discharges. Records excellent except those below 200 ft^3/s, which are good. No regulation or diversion upstream from station. Records herein are for measuring site.

AVERAGE DISCHARGE.--56 years, 764 ft^3/s, 92.64 in/yr, 553,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft^3/s Dec. 22, 1964, gage height, 16.73 ft, from rating curve extended above 17,000 ft^3/s; minimum discharge, 13 ft^3/s Aug. 30, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 8,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 31	2030	*7,800	*9.28				

Minimum discharge, 20 ft^3/s Sept. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	466	822	1270	1180	4760	505	453	428	710	62	47	23
2	366	502	989	1370	2850	919	502	509	478	61	46	22
3	296	367	800	1340	2060	1350	514	712	358	60	43	22
4	245	293	674	1340	1500	1380	482	582	292	59	42	23
5	210	250	596	1040	1170	1200	433	496	253	64	40	22
6	181	246	540	810	996	1180	429	461	225	64	39	21
7	160	718	478	667	925	944	489	432	200	58	39	21
8	142	666	429	568	839	762	912	390	185	57	38	21
9	130	616	385	492	781	699	795	346	169	56	35	21
10	118	589	349	438	701	690	771	304	155	57	34	21
11	107	472	325	410	710	695	1290	275	142	54	35	21
12	99	418	319	458	654	1560	1140	484	133	50	34	23
13	94	390	359	515	752	1840	907	518	124	48	36	24
14	88	410	598	559	1270	1920	776	415	117	47	43	26
15	85	393	557	483	1010	1540	679	366	112	46	41	40
16	81	466	465	430	1030	1140	627	320	108	44	38	39
17	81	2420	400	394	1180	1370	679	284	102	47	35	30
18	89	1800	359	364	1090	1460	717	256	97	151	33	27
19	81	1960	358	338	890	1200	636	235	92	157	32	24
20	74	2590	322	312	762	1010	584	216	89	93	31	24
21	70	3650	297	302	685	882	558	199	116	76	30	23
22	67	3520	315	308	645	775	545	185	117	82	29	22
23	64	3080	1030	361	612	807	528	175	96	75	29	21
24	62	2540	846	977	544	799	499	167	86	67	28	21
25	63	1910	662	1770	487	715	447	162	81	62	27	22
26	73	2430	866	2190	442	666	400	156	75	60	27	26
27	148	5720	769	2110	407	593	410	149	71	58	25	29
28	129	4430	619	1840	374	527	457	144	68	54	25	26
29	104	2590	568	1450	---	471	400	140	66	52	24	23
30	391	1740	621	1160	---	433	379	176	64	49	24	21
31	1380	---	557	3300	---	422	---	503	---	49	24	---
TOTAL	5744	47998	17723	29276	30136	30454	18437	10185	4981	2019	1053	729
MEAN	185	1600	572	944	1076	982	615	329	166	65.1	34.0	24.3
MAX	1380	5720	1270	3300	4760	1920	1290	712	710	157	47	40
MIN	62	246	297	302	374	422	379	140	64	44	24	21
AC-FT	11390	95200	35150	58070	59770	60410	36570	20200	9880	4000	2090	1450
CFSM	1.65	14.3	5.10	8.43	9.61	8.77	5.49	2.93	1.48	.58	.30	.22
IN.	1.91	15.94	5.89	9.72	10.01	10.12	6.12	3.38	1.65	.67	.35	.24

CAL YR 1986 TOTAL 255245 MEAN 699 MAX 14800 MIN 19 AC-FT 506300 CFSM 6.24 IN. 84.78
WTR YR 1987 TOTAL 198735 MEAN 544 MAX 5720 MIN 21 AC-FT 394200 CFSM 4.86 IN. 66.01

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR

LOCATION.--Lat 44°47'20", long 122°37'00", in NW 1/4 sec.18, T.9 S., R.2 E., Marion County, Hydrologic Unit 17090005, on right bank 300 ft downstream from highway bridge at Mehama, 0.5 mi downstream from Little North Santiam River, and at mile 38.71.

DRAINAGE AREA.--655 mi^2, at cableway 0.8 mi downstream, where all discharge measurements are made.

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to September 1914, September 1921 to current year. Monthly discharge only September 1921, published in WSP 1318. Prior to October 1913, published as North Fork of Santiam River at Mehama.

REVISED RECORDS.--WSP 739: 1922-23(M). WSP 1044: 1943. WSP 1248: 1906, 1911-14, 1924(M), 1926, 1934-36(M), 1937, 1938(M), 1942(M). WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 602.49 ft above National Geodetic Vertical Datum of 1929. Prior to June 15, 1933, nonrecording gage at site 100 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1953 by Detroit Lake (station 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft. No diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--71 years (water years 1906, 1911-14, 1922-87), 3,374 ft^3/s, 2,444,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,600 ft^3/s Dec. 28, 1945, gage height, 15.37 ft, from rating curve extended above 36,000 ft^3/s, on basis of slope-area measurement of peak flow; maximum gage height, 17.5 ft Nov. 20, 1921, from graph based on gage readings, and Jan. 6, 1923, from floodmark, at site then in use; minimum discharge, 254 ft^3/s Aug. 3, 1970; minimum daily, 420 ft^3/s Sept. 18, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,300 ft^3/s Nov. 29, gage height, 8.21 ft; minimum discharge, 927 ft^3/s July 11, Aug. 14-16; minimum daily, 954 ft^3/s Aug. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3500	3430	13100	3520	8630	1740	1650	1570	1810	1060	984	1040
2	3310	3090	11600	4430	8220	2160	1680	1630	1540	1010	983	1040
3	3030	2880	9600	5140	7050	2810	1710	1810	1370	1010	977	1030
4	2520	2850	7040	5160	7400	2950	1670	1680	1340	1010	962	1030
5	2520	2830	6620	4690	6770	2680	1620	1620	1310	1010	961	1030
6	2430	2810	6590	4320	6210	2640	1620	1550	1270	1020	966	1020
7	2560	3490	6150	3670	4560	2360	1660	1530	1250	1010	967	1020
8	2490	3430	4880	2610	4390	2110	2100	1460	1220	1010	972	1020
9	2360	3240	3560	2160	4250	2030	1970	1410	1180	1030	982	1030
10	2350	3270	3650	1820	2590	2030	2000	1360	1140	1010	984	1030
11	2390	3570	3530	1700	2040	2020	2650	1340	1140	1000	985	1320
12	2420	3550	3440	1780	1960	2910	2530	1680	1100	966	968	1640
13	2410	3420	3620	1970	2610	3410	2230	1650	1100	964	954	1700
14	2400	3470	3880	2150	4540	4880	2060	1530	1080	963	974	1720
15	2240	3400	3850	2160	4270	4540	1920	1460	1070	960	965	1660
16	2210	3580	3640	2080	4240	4010	1820	1420	1050	957	966	1650
17	2300	6320	3130	1730	4540	3510	1910	1360	1120	967	994	1930
18	2340	5340	2190	1660	3600	4740	1970	1320	1050	1200	989	1930
19	2360	6550	1820	1670	2340	4350	1900	1290	1040	1170	987	1930
20	2360	9380	1880	1590	2130	3990	1820	1270	1040	1060	1000	1930
21	2400	10400	1880	1480	2040	3800	1760	1240	1090	1040	996	1950
22	2310	12400	1850	1440	1990	3540	1730	1230	1070	1120	998	1960
23	2290	11000	2370	1510	1970	3130	1700	1320	1050	1040	993	1950
24	2280	11000	2270	2310	1850	2240	1660	1700	1040	1020	996	1950
25	2150	12000	2840	3330	1730	2120	1590	1290	1010	1000	990	1960
26	2150	12600	3180	5480	1650	2020	1540	1210	1020	992	1020	2010
27	2260	10600	3120	6440	1650	1900	1540	1570	1020	996	1030	2010
28	2220	9280	3010	6020	1610	1800	1570	1210	1020	992	1030	2000
29	2230	12700	2960	5350	---	1730	1510	1210	1030	986	1040	2040
30	2520	13800	2980	4900	---	1670	1490	1280	1010	975	1040	2100
31	3520	---	2830	7670	---	1630	---	1600	---	981	1040	---
TOTAL	76830	195680	133060	101940	106830	87450	54580	44800	34580	31529	30693	47630
MEAN	2478	6523	4292	3288	3815	2821	1819	1445	1153	1017	990	1588
MAX	3520	13800	13100	7670	8630	4880	2650	1810	1810	1200	1040	2100
MIN	2150	2810	1820	1440	1610	1630	1490	1210	1010	957	954	1020
AC-FT	152400	388100	263900	202200	211900	173500	108300	88860	68590	62540	60880	94470

CAL YR 1986 TOTAL 1241530 MEAN 3401 MAX 23200 MIN 1000 AC-FT 2463000
WTR YR 1987 TOTAL 945602 MEAN 2591 MAX 13800 MIN 954 AC-FT 1876000

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR

LOCATION.--Lat 44°23′35″, long 122°30′35″, in SE 1/4 sec.36, T.13 S., R.2 E., Linn County, Hydrologic Unit 17090006, on left bank 100 ft downstream from bridge at Cascadia ranger station, 0.5 mi downstream from Mouse Creek, 0.5 mi upstream from Deer Creek, 1.5 mi southwest of Cascadia, and at mile 48.5.

DRAINAGE AREA.--174 mi², at cableway 0.7 mi upstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 759.88 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 1, 1935, nonrecording gage.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--52 years, 821 ft³/s, 64.08 in/yr, 594,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft³/s Dec. 22, 1964, gage height, 19.68 ft, from rating curve extended above 14,000 ft³/s; minimum discharge, 23 ft³/s Dec. 1, 2, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 27	1300	*7,570	*9.81	No other peak greater than base discharge.			

Minimum discharge, 35 ft³/s Sept. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	378	539	1550	1190	4190	470	545	403	388	75	87	41
2	315	372	1180	1580	3930	480	572	419	285	73	84	41
3	274	300	961	1650	2650	667	590	466	243	72	81	41
4	244	261	824	1440	1850	848	554	421	215	71	76	41
5	221	241	748	1090	1400	922	522	386	199	73	73	41
6	196	281	671	874	1140	1010	520	368	192	73	71	40
7	181	791	609	734	1010	876	518	350	178	71	69	39
8	167	689	560	641	906	766	736	329	171	71	65	39
9	155	843	526	573	835	740	643	304	162	69	62	39
10	150	867	490	529	773	726	658	285	149	71	60	39
11	140	645	473	501	789	746	832	268	141	71	60	39
12	132	541	521	517	733	1310	806	385	133	66	59	40
13	128	494	584	537	1190	2010	701	375	125	63	59	42
14	122	676	790	584	1400	2060	629	317	119	61	62	44
15	118	596	650	533	1190	1690	584	294	118	59	62	52
16	116	603	559	482	1190	1270	564	274	119	57	60	51
17	114	1950	512	455	1320	1400	578	250	113	62	57	45
18	133	1560	488	424	1340	1660	565	238	107	458	56	42
19	123	1930	486	412	1100	1410	518	223	102	395	54	41
20	112	2540	448	390	936	1150	490	215	96	239	52	40
21	107	4320	421	378	828	974	480	207	147	193	50	39
22	103	4780	445	375	756	837	479	194	149	234	50	38
23	100	3880	674	403	720	945	481	187	116	200	50	36
24	96	3100	638	738	654	996	464	181	101	166	49	35
25	94	2390	595	1610	596	894	434	183	92	145	48	37
26	101	2590	777	2850	552	808	408	182	88	131	47	44
27	180	5890	704	2570	516	714	409	181	84	121	46	45
28	183	6260	617	2330	490	645	418	175	80	110	45	41
29	157	3420	683	1720	---	591	385	164	78	101	45	38
30	457	2190	742	1340	---	553	377	175	76	96	44	37
31	860	---	675	2290	---	539	---	355	---	90	43	---
TOTAL	5957	55539	20601	31750	34984	30707	16460	8754	4366	3837	1826	1227
MEAN	192	1851	665	1024	1249	991	549	282	146	124	58.9	40.9
MAX	860	6260	1550	2850	4190	2060	832	466	388	458	87	52
MIN	94	241	421	375	490	470	377	164	76	57	43	35
AC-FT	11820	110200	40860	62980	69390	60910	32650	17360	8660	7610	3620	2430
CFSM	1.10	10.6	3.82	5.89	7.18	5.69	3.15	1.62	.84	.71	.34	.24
IN.	1.27	11.87	4.40	6.79	7.48	6.56	3.52	1.87	.93	.82	.39	.26

CAL YR 1986 TOTAL 296242.9 MEAN 812 MAX 15000 MIN 38 AC-FT 587600 CFSM 4.66 IN. 63.33
WTR YR 1987 TOTAL 216008 MEAN 592 MAX 6260 MIN 35 AC-FT 428500 CFSM 3.40 IN. 46.18

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR --Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1962 to July 1967, February 1969 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder June 1962 to July 1967, February 1969 to September 1987.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 25.0°C July 30, Aug. 7, 1965; minimum, 0.0°C at times during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 24.0°C July 14; minimum, 1.0°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.0	10.5	10.5	9.5	8.0	8.5	6.5	5.5	6.0	6.0	6.0	6.0
2	10.5	9.0	9.5	8.5	7.5	8.0	6.5	5.5	6.0	6.5	5.5	6.0
3	10.5	9.5	10.0	8.5	7.5	8.0	5.5	5.0	5.5	6.5	6.0	6.5
4	11.0	9.5	10.0	8.5	8.0	8.0	6.0	5.5	5.5	6.5	6.0	6.0
5	11.0	10.0	10.5	9.0	8.0	8.5	6.5	6.0	6.0	6.0	4.5	5.0
6	11.5	10.5	11.0	9.0	8.5	8.5	6.5	6.0	6.0	5.0	4.0	4.5
7	11.5	11.0	11.5	8.5	7.5	8.0	5.5	4.5	5.0	4.0	3.5	3.5
8	11.5	10.5	11.0	8.0	7.5	8.0	4.5	4.0	4.0	3.5	2.5	3.0
9	11.5	10.5	11.0	8.5	7.5	8.0	4.0	3.0	3.5	3.0	2.5	3.0
10	11.5	10.5	11.0	8.0	6.5	7.0	3.5	3.0	3.0	4.0	3.0	3.5
11	10.5	9.5	9.5	7.5	6.5	7.0	4.5	3.5	3.5	4.5	3.5	4.0
12	9.5	9.0	9.5	7.5	6.5	7.0	5.0	4.5	4.5	5.5	4.5	5.0
13	9.5	8.5	9.0	8.0	7.0	7.5	6.0	5.0	5.5	5.0	4.5	4.5
14	9.5	9.0	9.0	8.0	8.0	8.0	6.5	6.0	6.0	4.5	3.5	4.0
15	9.5	9.0	9.0	7.5	6.5	7.0	6.0	5.0	5.0	3.5	2.0	2.5
16	9.5	9.0	9.5	7.0	7.0	7.0	5.0	4.5	4.5	2.0	1.0	1.5
17	10.0	9.5	10.0	8.0	7.0	7.5	4.5	4.5	4.5	2.0	1.5	2.0
18	11.0	10.0	10.5	8.0	7.0	7.5	5.0	4.0	4.5	3.0	2.0	2.5
19	10.5	9.5	10.0	8.0	7.5	7.5	6.0	5.0	5.5	3.0	2.5	3.0
20	9.5	9.0	9.0	8.5	7.5	8.0	6.0	5.0	5.0	2.5	2.0	2.0
21	9.5	9.0	9.0	8.0	7.0	7.5	6.5	5.0	6.0	3.0	2.0	2.5
22	9.5	9.0	9.0	7.5	7.0	7.0	7.0	6.0	6.5	4.0	3.0	3.5
23	9.5	9.0	9.0	8.0	7.0	7.5	6.5	6.0	6.5	4.5	4.0	4.0
24	10.5	9.5	10.0	8.0	6.5	7.5	6.0	5.5	6.0	5.0	4.5	4.5
25	12.0	10.5	11.0	6.5	5.5	6.0	6.0	5.0	5.5	5.5	5.0	5.5
26	12.0	11.5	12.0	7.5	6.5	7.0	6.5	6.0	6.0	6.5	5.5	6.0
27	12.0	11.0	11.5	7.5	7.0	7.5	6.0	4.5	5.0	6.5	6.0	6.0
28	11.0	10.0	10.0	7.0	7.0	7.0	5.5	4.0	5.0	6.0	5.5	5.5
29	10.0	9.5	10.0	7.0	6.0	6.5	6.5	5.5	6.0	6.0	5.5	6.0
30	10.0	10.0	10.0	6.0	5.0	5.5	6.0	5.0	5.0	6.0	5.5	6.0
31	10.0	9.5	9.5	---	---	---	6.0	5.0	5.5	6.5	5.5	6.0
MONTH	12.0	8.5	10.0	9.5	5.0	7.5	7.0	3.0	5.0	6.5	1.0	4.5

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	6.0	6.0	6.5	5.5	6.0	10.0	7.0	8.5			
2	6.5	6.0	6.5	7.0	6.0	6.5	10.0	9.0	9.0			
3	7.0	6.0	6.5	7.5	7.0	7.0	9.5	7.5	8.0			
4	7.0	5.5	6.5	8.0	6.5	7.5	9.0	7.0	8.0			
5	6.5	5.5	6.0	8.0	7.0	7.5	8.0	6.5	7.0			
6	7.0	5.5	6.0	7.5	6.0	6.5	8.5	7.0	7.5			
7	7.0	5.5	6.0	6.5	4.5	5.5	9.5	7.5	8.5			
8	7.0	6.5	6.5	6.5	5.5	6.0	9.0	8.0	8.5			
9	7.5	6.0	6.5	7.0	6.0	6.5	9.0	6.0	7.5			
10	8.0	7.0	7.5	7.5	6.0	7.0	8.5	7.5	7.5			
11	7.5	6.5	7.0	7.0	6.5	6.5	7.5	6.0	7.0			
12	7.0	5.5	6.0	7.5	6.5	7.0	8.5	5.5	7.0			
13	7.0	6.5	7.0	7.0	6.5	7.0	9.5	6.0	7.5			
14	6.5	5.5	6.0	7.0	6.0	6.5	10.5	7.0	9.0			
15	6.5	6.0	6.5	7.0	5.5	6.0	11.0	8.0	9.5			
16	6.5	5.5	6.0	7.0	6.0	6.5	11.0	8.5	10.0			
17	6.5	6.0	6.0	7.0	6.0	6.5	10.0	7.5	9.0			
18	6.0	5.0	5.5	6.0	5.5	5.5	7.5	6.5	7.0			
19	6.5	5.0	5.5	6.5	5.0	5.5	8.5	5.5	7.0			
20	6.0	4.5	5.5	7.0	5.0	6.0	9.5	5.5	7.5			
21	6.5	6.0	6.0	7.0	5.0	6.0	11.0	7.5	9.0			
22	6.0	5.0	5.5	7.0	4.5	6.0	11.5	8.5	10.0			
23	5.5	4.5	5.0	7.0	6.0	6.5	12.0	9.5	10.5			
24	4.5	4.0	4.5	7.5	5.5	6.5	11.0	8.5	10.0			
25	4.0	2.5	3.5	7.5	5.0	6.0	---	---	---			
26	4.5	2.5	3.5	7.0	5.5	6.5	---	---	---			
27	5.0	4.0	4.5	7.5	5.0	6.0	---	---	---			
28	5.5	4.5	5.0	7.0	4.5	5.5	---	---	---			
29	---	---	---	7.5	4.5	6.0	---	---	---			
30	---	---	---	8.5	5.5	7.0	---	---	---			
31	---	---	---	9.5	6.5	8.0	---	---	---			
MONTH	8.0	2.5	6.0	9.5	4.5	6.5	---	---	---			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	23.0	20.5	21.0	17.5	15.5	16.0	21.5	18.5	19.5
2	---	---	---	22.0	19.0	20.0	18.5	15.5	16.5	20.0	17.5	18.5
3	---	---	---	20.0	18.0	18.5	20.0	16.5	18.0	19.5	16.5	17.0
4	---	---	---	19.0	17.0	18.0	21.0	17.5	19.0	19.5	15.0	16.5
5	---	---	---	17.0	16.0	16.5	20.5	18.0	18.5	19.5	15.0	16.5
6	---	---	---	18.0	15.5	16.5	20.0	17.0	18.0	19.5	15.0	16.5
7	---	---	---	18.5	16.5	17.0	20.5	16.5	18.0	19.0	15.5	17.0
8	---	---	---	19.0	16.5	17.5	22.0	17.5	19.0	19.0	15.5	16.5
9	17.0	---	---	17.5	16.0	16.5	22.0	18.5	19.5	19.0	15.0	16.5
10	16.5	14.0	15.5	19.0	16.0	17.0	20.0	17.5	19.0	17.5	15.5	16.5
11	17.0	14.0	15.5	20.5	17.0	18.5	20.0	17.0	18.0	16.0	15.5	16.0
12	18.5	15.5	17.0	22.5	18.0	19.5	20.0	16.5	18.0	16.0	15.0	15.5
13	19.0	16.0	17.5	23.5	19.0	20.5	18.5	16.5	17.5	17.0	14.5	15.5
14	18.5	17.0	18.0	24.0	19.5	21.0	17.5	15.5	16.5	15.0	13.5	14.5
15	17.5	14.0	15.5	23.0	19.0	20.5	17.5	15.5	16.0	14.5	12.5	13.5
16	14.5	13.0	13.5	18.5	16.5	18.0	19.0	16.0	16.5	14.5	11.5	12.5
17	15.5	12.5	14.0	16.5	14.5	15.5	19.0	15.5	16.5	14.5	11.0	12.0
18	17.0	14.0	15.5	14.0	12.5	13.5	19.5	15.0	16.5	14.5	11.0	12.5
19	18.5	15.0	16.5	16.0	12.0	14.0	20.0	15.5	17.0	15.0	11.0	12.5
20	17.0	15.0	16.0	15.5	13.5	14.5	20.0	16.0	17.0	15.0	11.5	13.0
21	15.0	14.0	14.5	15.5	14.0	15.0	19.5	15.0	16.5	16.0	12.0	13.5
22	16.0	12.5	14.0	16.5	14.5	15.5	17.5	15.0	16.0	16.0	12.5	14.0
23	17.5	14.5	15.5	16.0	14.0	15.0	20.0	15.5	17.0	16.0	13.0	14.5
24	18.5	15.0	16.5	18.0	15.5	16.5	20.5	16.0	17.5	14.5	13.0	14.0
25	20.0	16.5	18.0	18.0	16.5	17.0	20.5	16.0	17.5	15.0	13.5	14.0
26	21.5	18.5	19.5	17.0	15.5	16.5	21.0	16.5	18.0	14.5	12.5	13.5
27	22.0	19.0	20.0	16.5	15.0	15.5	20.5	16.5	18.0	14.0	11.5	12.5
28	22.0	19.0	20.5	18.0	16.0	16.5	21.5	16.5	18.0	13.5	10.5	12.0
29	22.5	19.5	20.5	18.0	16.5	17.0	20.5	16.5	18.0	14.0	10.5	12.0
30	23.0	20.5	21.5	17.0	16.0	17.0	21.5	16.5	18.5	14.5	11.0	12.5
31	---	---	---	18.0	15.5	16.5	22.0	17.5	19.0	---	---	---
MONTH	---	---	---	24.0	12.0	17.0	22.0	15.0	17.5	21.5	10.5	14.5

14185700 MIDDLE SANTIAM RIVER NEAR UPPER SODA, OR

LOCATION.--Lat 44°30'45", long 122°15'52", in SE 1/4 NE 1/4 sec.24, T.12 S., R.4 E., Linn County, Hydrologic Unit 17090006, on right bank 0.8 mi upstream from Bear Creek, 7.5 mi north of Upper Soda, and at mile 23.9.

DRAINAGE AREA.--74.6 mi^2.

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,500 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--7 years, 428 ft^3/s, 77.91 in/yr, 310,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft^3/s Feb. 23, 1986, gage height, 11.05 ft, from rating curve extended above 3,600 ft^3/s on basis of slope-area measurement of December 1980; minimum discharge, 22 ft^3/s Sept. 16-20, 1981, Sept. 23-25, 29, 30, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1100	*3,680	*6.04	No other peak greater than base discharge.			

Minimum discharge, 22 ft^3/s Sept. 23-25, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	254	811	474	2060	272	295	257	205	57	55	26
2	138	191	647	494	1780	291	316	276	160	54	53	26
3	122	155	530	616	1320	375	336	328	144	53	51	26
4	110	135	456	596	1000	464	332	287	134	52	48	26
5	101	123	414	501	806	511	314	269	127	54	46	26
6	94	125	376	428	696	565	311	261	123	53	44	25
7	88	172	339	375	636	519	305	251	114	51	43	25
8	83	197	313	338	590	465	429	237	112	49	42	24
9	79	233	287	308	557	440	383	220	109	48	40	24
10	75	244	267	286	520	426	388	203	103	48	39	24
11	72	212	253	270	530	442	440	189	96	48	39	24
12	68	202	253	270	491	654	425	236	92	46	38	24
13	67	202	297	266	635	880	394	221	88	44	37	24
14	64	269	350	253	693	953	370	197	87	43	40	26
15	63	243	310	235	652	823	352	185	85	42	39	29
16	61	270	285	225	640	683	345	173	83	40	37	28
17	60	760	265	215	648	692	347	161	80	43	36	26
18	64	747	250	209	610	699	333	154	78	184	36	24
19	61	979	248	201	538	620	310	145	75	133	34	24
20	58	1190	231	191	481	557	297	140	75	89	33	23
21	56	1620	221	188	444	504	289	135	90	80	32	23
22	55	1460	241	187	412	452	286	130	87	167	32	23
23	54	1600	382	192	386	446	289	130	77	108	32	22
24	53	1610	349	321	352	423	286	132	72	94	30	22
25	53	1240	320	649	323	398	270	132	69	84	30	22
26	60	1400	374	1110	305	379	256	127	67	76	30	24
27	103	2990	345	1160	290	352	257	125	64	70	29	24
28	84	2510	318	1040	277	330	267	126	61	67	28	23
29	79	1530	344	832	---	311	251	120	60	64	28	22
30	189	1070	348	695	---	297	245	130	59	60	28	22
31	359	---	325	1230	---	290	---	208	---	57	27	---
TOTAL	2832	23933	10749	14355	18672	15513	9718	5885	2876	2158	1156	731
MEAN	91.4	798	347	463	667	500	324	190	95.9	69.6	37.3	24.4
MAX	359	2990	811	1230	2060	953	440	328	205	184	55	29
MIN	53	123	221	187	277	272	245	120	59	40	27	22
AC-FT	5620	47470	21320	28470	37040	30770	19280	11670	5700	4280	2290	1450
CFSM	1.22	10.7	4.65	6.21	8.94	6.71	4.34	2.54	1.29	.93	.50	.33
IN.	1.41	11.93	5.36	7.16	9.31	7.74	4.85	2.93	1.43	1.08	.58	.36

CAL YR 1986 TOTAL 153948 MEAN 422 MAX 11700 MIN 25 AC-FT 305400 CFSM 5.65 IN. 76.77
WTR YR 1987 TOTAL 108578 MEAN 297 MAX 2990 MIN 22 AC-FT 215400 CFSM 3.99 IN. 54.14

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR

LOCATION.--Lat 44°32'25", long 122°26'05", in NW 1/4 sec.10, T.12 S., R.3 E., Linn County, Hydrologic Unit 17090006, on Bureau of Land Management land, on right bank 80 ft downstream from Panther Creek, 10 mi north of Cascadia, and at mile 6.6.

DRAINAGE AREA.--99.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to November 1964 (destroyed by flood of December 1964); October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,050 ft, from topographic map. Aug. 13, 1963, to Dec. 22, 1964, water-stage recorder on left bank at present datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--23 years (water years 1964, 1966-87), 674 ft^3/s, 92.27 in/yr, 488,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft^3/s Jan. 20, 1972, gage height, 16.38 ft; minimum discharge, 14 ft^3/s Aug. 19-23, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 36,500 ft^3/s Dec. 22, 1964, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 20	2130	5,440	10.31	Jan. 31	1930	7,470	11.38
Nov. 27	1000	*8,270	*11.76				

Minimum discharge, 24 ft^3/s Sept. 24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	545	991	1370	5240	351	379	262	357	58	64	30
2	239	329	762	1230	3370	561	414	385	243	56	62	30
3	200	244	623	1400	2110	1100	413	627	198	55	59	29
4	173	201	537	1280	1400	1180	379	457	171	55	57	29
5	156	178	467	941	1050	1030	349	360	154	58	55	28
6	142	177	438	713	881	1040	360	310	142	56	53	28
7	128	457	388	577	801	886	377	273	132	54	52	27
8	115	457	348	488	721	708	674	243	124	53	50	27
9	106	549	315	423	663	659	538	216	117	52	48	27
10	100	508	288	378	601	689	592	195	109	52	46	27
11	94	373	274	357	626	734	817	180	105	51	46	26
12	89	328	280	418	567	1710	711	329	99	48	45	27
13	84	308	436	474	1020	2130	573	311	94	47	46	28
14	80	386	698	460	1510	2390	487	254	91	45	49	30
15	77	339	598	384	1170	1630	438	225	88	43	47	41
16	75	466	470	338	1300	1110	411	203	87	42	44	34
17	73	2060	396	311	1310	1200	405	186	84	44	42	30
18	78	1550	361	291	1070	1270	381	172	80	331	41	29
19	70	1840	388	272	841	1010	352	161	77	295	40	27
20	66	2900	342	256	707	819	349	152	76	150	38	27
21	63	3710	311	254	629	711	357	144	109	134	38	26
22	61	3450	390	269	574	619	348	135	101	219	37	26
23	59	3400	1010	362	527	654	335	129	83	145	37	25
24	57	2670	754	1390	470	641	309	124	76	117	35	24
25	56	1800	626	2340	419	566	277	121	71	101	35	26
26	66	2700	897	2730	377	517	257	117	68	91	34	28
27	170	6300	723	2280	347	461	259	114	65	84	33	28
28	131	4840	570	1880	324	412	258	110	62	78	33	26
29	112	2380	571	1480	---	374	228	105	61	73	33	25
30	423	1410	580	1150	---	347	226	140	59	70	32	24
31	1040	---	509	3470	---	346	---	340	---	67	31	---
TOTAL	4678	46855	16361	29966	30625	27855	12253	7080	3383	2824	1362	839
MEAN	151	1562	528	967	1094	899	408	228	113	91.1	43.9	28.0
MAX	1040	6300	1010	3470	5240	2390	817	627	357	331	64	41
MIN	56	177	274	254	324	346	226	105	59	42	31	24
AC-FT	9280	92940	32450	59440	60740	55250	24300	14040	6710	5600	2700	1660
CFSM	1.52	15.7	5.32	9.74	11.0	9.06	4.12	2.30	1.14	.92	.44	.28
IN.	1.75	17.57	6.14	11.24	11.48	10.45	4.59	2.65	1.27	1.06	.51	.31

CAL YR 1986 TOTAL 238068 MEAN 652 MAX 12100 MIN 20 AC-FT 472200 CFSM 6.58 IN. 89.28
WTR YR 1987 TOTAL 184081 MEAN 504 MAX 6300 MIN 24 AC-FT 365100 CFSM 5.08 IN. 69.03

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR-- Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1963 to November 1964, October 1965 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder August 1963 to November 1964, October 1965 to September 1987.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 25.5°C Aug. 10, 11, 1971; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 21.5°C Aug. 8, 9; minimum, 1.5°C Jan. 16, 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.0	9.0	9.5	9.0	8.0	8.5	6.5	5.5	6.5	6.0	5.5	5.5
2	9.5	7.5	9.0	8.5	7.5	8.0	6.5	6.0	6.0	6.0	5.5	5.5
3	10.5	8.0	9.0	8.5	7.5	8.0	5.5	5.0	5.5	6.0	6.0	6.0
4	10.5	9.0	9.5	8.5	7.5	8.0	6.5	5.5	6.0	6.0	6.0	6.0
5	11.0	9.5	10.0	8.5	7.5	8.0	6.5	6.5	6.5	6.0	5.0	5.0
6	11.5	9.5	10.5	8.5	7.5	8.0	6.5	5.5	6.5	5.0	4.0	4.5
7	11.5	10.5	11.0	8.0	7.5	7.5	5.5	4.5	5.0	4.0	3.5	3.5
8	11.0	9.5	10.5	7.5	7.0	7.5	4.5	4.0	4.5	3.5	3.0	3.0
9	11.0	10.0	10.5	7.5	7.0	7.5	4.0	3.5	3.5	3.0	2.5	3.0
10	11.0	9.5	10.0	7.5	6.0	6.5	3.5	3.5	3.5	4.0	3.0	3.5
11	10.0	8.5	9.0	7.5	6.0	6.5	4.5	3.5	4.0	4.5	3.5	4.0
12	9.0	8.0	8.5	7.5	6.5	7.0	5.0	4.5	5.0	4.5	4.5	4.5
13	9.0	8.0	8.5	7.5	6.5	7.0	6.0	5.0	5.5	4.5	3.5	4.0
14	9.0	7.5	8.5	8.0	7.5	7.5	6.0	5.0	6.0	4.0	3.5	3.5
15	9.0	8.0	8.5	7.5	7.0	7.0	6.0	5.0	5.5	3.5	2.0	2.5
16	9.5	8.5	9.0	---	---	---	5.0	4.0	4.5	2.0	1.5	1.5
17	---	---	---	7.5	7.0	7.5	4.5	4.0	4.5	2.5	1.5	2.0
18	10.5	9.5	10.0	8.0	7.5	7.5	5.0	4.0	4.5	3.5	2.5	2.5
19	9.5	9.0	9.5	---	---	---	6.0	5.0	5.5	3.5	3.0	3.0
20	9.5	8.0	9.0	8.5	---	8.0	5.5	5.0	5.0	3.0	2.0	2.5
21	9.0	8.5	9.0	8.0	6.0	7.5	6.0	5.0	5.5	3.0	2.5	2.5
22	9.0	8.5	9.0	7.0	6.0	7.0	6.5	6.0	6.0	4.0	3.0	3.5
23	9.5	8.5	9.0	8.0	7.0	7.5	6.5	6.0	6.5	4.5	4.0	4.0
24	10.5	9.0	9.5	8.0	7.0	7.5	6.0	5.5	6.0	5.0	4.5	4.5
25	11.0	10.5	11.0	6.5	6.0	6.5	6.0	5.5	5.5	5.5	5.0	5.5
26	11.5	11.0	11.0	7.5	6.5	7.0	6.5	6.0	6.0	6.0	5.5	5.5
27	11.5	10.5	11.0	8.0	7.0	7.5	6.0	5.0	5.5	6.0	5.5	6.0
28	10.5	9.5	10.0	---	---	---	5.5	4.5	5.0	---	---	---
29	10.0	9.0	9.5	---	---	---	6.0	5.5	6.0	6.0	5.5	5.5
30	9.5	9.5	9.5	6.5	6.0	6.0	6.0	5.0	5.0	6.0	5.5	5.5
31	10.0	9.0	9.5	---	---	---	5.5	5.0	5.5	6.0	4.5	5.0
MONTH	---	---	---	---	---	---	6.5	3.5	5.5	---	---	---

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	6.0	6.0	6.0	5.0	5.5	10.0	6.5	8.5			
2	6.0	5.5	6.0	6.0	5.5	6.0	9.5	7.0	8.5			
3	6.5	6.0	6.0	6.5	6.0	6.5	8.5	7.0	7.5			
4	6.5	5.5	6.0	7.5	6.0	7.0	9.0	6.5	7.5			
5	6.5	5.5	6.0	7.0	6.5	7.0	7.0	6.5	7.0			
6	6.5	5.0	5.5	6.5	5.5	6.5	8.5	6.5	7.5			
7	6.0	5.0	5.5	7.0	5.0	6.0	9.5	7.5	8.5			
8	6.5	6.0	6.0	6.5	5.5	6.0	8.5	7.0	8.0			
9	6.5	5.5	6.0	7.0	6.0	6.5	8.5	5.5	7.0			
10	7.0	6.5	7.0	7.5	6.0	6.5	7.5	6.5	7.0			
11	7.0	6.0	6.5	7.0	6.5	6.5	7.0	6.0	6.5			
12	6.5	5.0	6.0	7.0	6.5	7.0	8.5	5.5	6.5			
13	6.5	6.0	6.5	7.0	6.5	6.5	9.0	5.5	7.0			
14	6.5	6.0	6.0	6.5	6.0	6.5	10.0	6.5	8.5			
15	6.0	6.0	6.0	6.5	6.0	6.0	11.0	7.5	9.0			
16	6.0	5.5	6.0	7.0	6.0	6.5	10.5	8.0	9.5			
17	6.0	5.0	6.0	7.0	6.0	6.5	9.5	7.0	8.0			
18	6.0	5.0	5.5	6.0	4.5	5.5	7.5	6.0	6.5			
19	6.5	5.0	5.5	6.0	5.0	5.5	8.0	5.0	6.5			
20	6.0	5.0	5.5	7.0	5.0	6.0	9.5	5.0	7.5			
21	6.0	5.5	6.0	7.0	5.0	6.0	11.0	7.0	9.0			
22	5.5	4.5	5.5	7.0	4.5	6.0	11.5	8.0	10.0			
23	5.5	4.0	4.5	6.5	6.0	6.0	12.5	9.0	10.5			
24	4.5	3.5	4.0	7.5	5.5	6.0	11.0	8.0	9.5			
25	4.0	2.5	3.5	7.0	5.0	6.0	11.5	8.0	9.5			
26	4.5	2.5	3.5	7.0	5.0	6.0	12.5	8.5	10.5			
27	5.0	3.5	4.5	7.0	5.0	6.0	---	---	---			
28	5.5	4.5	5.0	7.0	4.0	5.5	---	---	---			
29	---	---	---	7.5	4.0	6.0	---	---	---			
30	---	---	---	8.0	5.0	6.5	---	---	---			
31	---	---	---	9.0	6.0	7.5	---	---	---			
MONTH	7.0	2.5	5.5	9.0	4.0	6.0	---	---	---			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---				---	---	---	20.5	18.5	19.5
2	---	---	---				---	---	---	19.0	17.0	18.0
3	---	---	---				---	---	---	18.5	15.5	17.0
4	---	---	---				---	---	---	18.0	15.0	17.0
5	---	---	---				20.5	---	---	18.5	15.5	17.0
6	---	---	---				20.0	16.0	18.0	18.5	16.0	17.5
7	---	---	---				21.0	16.0	18.5	18.5	16.0	17.5
8	---	---	---				21.5	17.0	19.5	18.5	16.0	17.5
9	---	---	---				21.5	18.0	19.5	18.5	16.0	17.5
10	17.0	---	---				20.0	18.0	18.5	18.0	16.5	17.0
11	17.5	13.5	15.5				20.5	16.5	18.5	17.0	16.0	16.5
12	18.5	15.0	16.5				20.0	16.5	18.0	16.0	15.5	15.5
13	19.5	15.0	17.5				18.0	16.5	17.0	16.5	15.0	15.5
14	19.5	16.5	17.5				17.0	15.5	16.0	14.5	14.0	14.5
15	16.5	13.5	15.0				17.0	15.0	16.0	14.0	13.0	13.5
16	14.0	12.5	13.5				18.5	15.0	16.5	14.0	11.5	13.0
17	---	---	---				18.5	14.5	16.5	14.5	11.5	13.0
18	---	---	---				19.0	15.0	17.0	14.5	12.0	13.5
19	---	---	---				19.5	15.5	17.5	15.0	12.5	14.0
20	---	---	---				19.0	15.5	17.5	15.0	13.0	14.5
21	---	---	---				18.5	15.0	16.5	15.5	13.5	14.5
22	---	---	---				18.0	15.0	16.5	16.0	13.5	15.0
23	---	---	---				19.5	16.0	18.0	16.0	14.0	15.0
24	---	---	---				19.5	16.0	17.5	15.0	14.0	14.5
25	---	---	---				19.5	16.0	18.0	14.5	14.0	14.5
26	---	---	---				20.0	17.0	18.5	14.5	13.0	13.5
27	---	---	---				20.0	17.0	18.5	13.5	11.5	12.5
28	---	---	---				20.0	17.0	18.5	13.5	11.5	12.5
29	---	---	---				19.5	16.0	18.0	14.0	12.0	13.0
30	---	---	---				20.5	17.0	18.5	14.0	12.0	13.0
31	---	---	---				21.0	18.0	19.5	---	---	---
MONTH	---	---	---				---	---	---	20.5	11.5	15.0

14186100 GREEN PETER LAKE NEAR FOSTER, OR

LOCATION.--Lat 44°27'10", long 122°32'40", in NE 1/4 SE 1/4 sec.10, T.13 S., R.2 E., Linn County, Hydrologic Unit 17090006, in Green Peter Dam on Middle Santiam River, 7.0 mi northeast of Foster, and at mile 5.7.

DRAINAGE AREA.--273 mi^2.

PERIOD OF RECORD.--October 1966 to current year. Prior to October 1971, published as Green Peter Reservoir near Foster.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with ogee spillway completed in 1966 by Corps of Engineers; controlled storage began Oct. 6, 1966. Total capacity, 428,100 acre-ft, usable capacity 330,800 acre-ft between elevations 887.0 ft, proposed lower limit of operation, and 1,015.0 ft, top of spillway gates. Reservoir used for flood control, power development, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Midnight elevations furnished by Corps of Engineers and reviewed by Geological Survey. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 420,200 acre-ft June 9, 1981, elevation, 1,012.86 ft; minimum contents, 116,900 acre-ft Dec. 15, 1972, elevation, 899.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 384,200 acre-ft May 11, elevation, 1,002.76 ft; minimum contents, 160,700 acre-ft Dec. 31, elevation, 922.40 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

899	116,600	960	251,100
900	118,300	980	309,700
920	155,700	1,000	374,800
940	199,900	1,013	420,700

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	983.11	963.26	960.04	923.85	940.18	961.90	986.60	999.80	996.79	992.23	986.61	975.36
2	981.99	962.62	955.51	924.99	943.74	962.63	986.95	1000.22	996.96	991.96	986.35	974.90
3	981.12	961.87	951.25	926.37	945.34	963.71	987.36	1000.83	997.07	991.69	986.08	974.51
4	980.39	960.75	948.95	927.40	944.73	964.81	987.71	1001.28	997.10	991.39	985.81	974.11
5	979.64	959.65	946.61	927.55	943.48	965.98	988.00	1001.67	997.06	991.13	985.53	973.81
6	978.83	958.72	944.25	926.99	942.14	967.10	988.39	1002.00	996.98	990.85	985.25	973.50
7	978.41	958.29	941.70	925.92	942.29	968.03	988.75	1002.19	996.91	990.55	984.97	973.19
8	977.97	957.61	939.72	925.05	942.33	968.80	989.38	1002.36	996.80	990.27	984.68	973.08
9	977.51	957.11	938.26	924.80	942.23	969.51	989.90	1002.51	996.61	989.96	984.38	972.99
10	977.04	956.50	936.65	924.73	943.05	970.22	990.54	1002.62	996.48	989.66	984.08	972.88
11	976.44	955.70	935.49	924.57	943.89	971.04	991.53	1002.56	996.34	989.39	983.79	972.78
12	975.95	954.70	934.28	924.57	944.70	972.86	992.40	1002.38	996.15	989.07	983.49	972.68
13	975.42	953.30	933.39	924.55	946.15	975.18	993.10	1002.20	995.97	988.75	983.19	972.59
14	974.90	951.96	932.77	924.52	948.20	977.22	993.70	1001.40	995.77	988.42	982.91	972.52
15	974.30	950.55	931.96	924.27	949.76	978.50	994.23	1000.82	995.57	988.08	982.60	972.46
16	973.54	949.32	930.93	924.07	951.47	979.26	994.73	1000.23	995.38	987.79	982.30	972.36
17	972.85	950.54	929.76	923.98	953.37	980.58	995.25	999.62	995.17	987.48	981.94	971.95
18	972.14	949.98	929.05	923.82	954.97	981.70	995.73	998.96	994.97	987.97	981.58	971.54
19	971.40	949.70	928.40	923.63	956.20	982.37	996.15	998.40	994.75	988.23	981.17	971.07
20	970.63	950.75	927.76	923.57	957.18	982.68	996.54	997.90	994.56	988.25	980.76	970.60
21	969.87	953.28	927.11	923.74	958.04	982.80	996.89	997.27	994.41	988.31	980.34	970.03
22	969.02	955.81	926.57	923.93	958.85	982.62	997.28	996.72	994.27	988.39	979.93	969.46
23	968.16	957.49	927.30	924.32	959.53	982.76	997.65	996.63	994.11	988.40	979.51	968.85
24	967.31	957.00	927.74	926.20	960.06	983.42	998.01	996.58	993.92	988.36	978.99	968.24
25	966.46	954.17	926.99	929.29	960.53	983.94	998.33	996.51	993.70	988.20	978.46	967.68
26	965.70	952.86	926.55	933.49	960.94	984.38	998.56	996.44	993.47	988.03	977.97	967.16
27	965.01	960.59	925.87	933.85	961.27	984.90	998.82	996.40	993.22	987.85	977.54	966.63
28	964.26	967.93	924.90	933.64	961.59	985.24	999.06	996.37	992.99	987.61	977.11	966.09
29	963.51	967.51	923.99	932.62	---	985.61	999.26	996.30	992.74	987.37	976.67	965.55
30	963.13	964.39	923.32	931.09	---	985.94	999.45	996.31	992.50	987.12	976.24	965.01
31	963.59	---	922.56	934.11	---	986.26	---	996.55	---	986.86	975.80	---
MAX	983.11	967.93	960.04	934.11	961.59	986.26	999.45	1002.62	997.10	992.23	986.61	975.36
MIN	963.13	949.32	922.56	923.57	940.18	961.90	986.60	996.30	992.50	986.86	975.80	965.01
(†)	261100	263400	161000	186200	255500	329400	372900	363100	349600	331300	296900	265100
(‡)	-62200	+2300	-102400	+25200	+69300	+73900	+43500	-9800	-13500	-18300	-34400	-31800

CAL YR 1986 MAX 1010.31 MIN 922.04 AC-FT‡ -1400
WTR YR 1987 MAX 1002.62 MIN 922.56 AC-FT‡ -58200

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14186600 FOSTER LAKE AT FOSTER, OR

LOCATION.--Lat 44°25'00", long 122°40'25", in NW 1/4 NE 1/4 sec.27, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, in Foster Dam on South Santiam River, 0.3 mi above Wiley Creek, 0.5 mi north of Foster, and at mile 37.7.

DRAINAGE AREA.--492 mi^2.

PERIOD OF RECORD.--December 1966 to current year. Prior to October 1971, published as Foster Reservoir at Foster.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by rockfill embankment with an impervious core and ogee spillway completed in 1966 by Corps of Engineers; controlled storage began in November 1966. Total capacity, 60,780 acre-ft and usable capacity 33,210 acre-ft between elevations 609.0 ft, proposed lower limit of operation, and 641.0 ft, top of spillway gates. Lake used for reregulation of water released from Green Peter Lake, flood control, power development, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Midnight elevations furnished by Corps of Engineers and reviewed by Geological Survey. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 60,090 acre-ft Sept. 17, 1968, elevation, 640.45 ft; minimum contents, 26,590 acre-ft Nov. 15, 16, 1971, elevation, 607.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 57,310 acre-ft July 19, elevation, 638.19 ft; minimum contents, 29,260 acre-ft Dec. 10, elevation, 610.96 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

607	25,880	630	47,860
610	28,430	635	53,510
615	32,870	640	59,530
620	37,570	641	60,780
625	42,550		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	636.62	623.04	613.05	614.23	614.17	621.94	628.34	614.34	637.25	636.97	636.96	637.16
2	636.82	622.97	613.02	613.99	614.00	621.07	628.71	614.53	637.10	636.97	636.96	637.18
3	636.69	623.44	613.00	613.44	612.99	621.04	629.02	614.79	636.89	636.92	636.96	637.08
4	636.64	623.63	613.00	613.26	613.93	621.58	629.21	614.94	636.74	636.99	636.93	636.97
5	636.74	622.07	613.00	613.07	614.54	621.37	629.32	614.86	636.68	636.96	636.93	636.60
6	636.84	620.23	613.00	613.32	615.28	621.50	629.56	614.74	636.73	636.96	636.89	636.22
7	636.82	619.23	613.00	613.67	615.20	621.34	629.34	614.87	636.75	637.04	636.86	635.86
8	636.73	618.22	613.20	613.65	615.35	621.41	626.89	614.90	636.76	636.97	636.83	634.26
9	636.66	617.18	612.82	613.96	615.65	621.60	623.15	614.88	636.89	637.04	636.80	632.11
10	636.60	616.65	613.66	614.05	615.73	621.77	619.07	614.80	637.00	637.13	636.75	629.93
11	636.75	615.69	613.73	614.05	616.03	622.11	614.80	615.16	636.93	637.07	636.70	627.70
12	636.63	614.52	613.97	614.05	616.31	622.67	614.44	617.27	637.02	637.12	636.66	625.40
13	636.52	614.52	614.37	614.00	616.25	623.10	614.59	618.99	637.09	637.19	636.63	623.04
14	634.70	614.65	613.84	613.52	615.58	623.67	614.26	622.14	637.09	637.22	636.60	620.38
15	631.81	614.65	613.76	613.51	615.17	624.00	614.23	624.83	637.14	637.26	636.55	617.47
16	629.11	614.89	613.59	613.45	614.61	624.41	614.19	626.99	637.14	637.19	636.50	614.49
17	628.40	615.66	613.80	613.37	614.10	624.68	614.24	629.03	637.20	637.31	636.54	614.03
18	627.74	613.46	613.56	613.66	614.14	625.32	614.17	631.04	637.20	637.69	636.61	613.62
19	627.14	613.00	613.80	613.53	615.32	625.29	614.16	631.80	637.21	637.96	636.66	613.38
20	626.98	613.59	613.50	613.30	616.66	625.68	614.22	634.44	637.22	637.85	636.66	613.20
21	626.60	613.18	613.42	613.54	617.83	625.85	614.38	636.12	637.35	637.53	636.55	613.36
22	626.20	612.96	613.94	613.48	618.98	626.00	614.45	637.68	637.32	637.39	636.45	613.53
23	625.71	613.04	614.10	613.52	620.09	626.60	614.45	637.62	637.22	637.20	636.36	613.67
24	625.25	613.14	613.60	613.75	621.00	626.47	614.42	637.58	637.14	636.95	636.52	613.82
25	624.79	613.11	613.60	613.86	621.72	626.78	614.31	637.56	637.16	636.95	636.70	614.00
26	624.18	613.14	614.03	614.08	622.09	627.00	614.31	637.51	637.16	636.89	636.90	614.00
27	623.66	614.34	613.84	613.31	622.01	627.24	614.27	637.33	637.12	636.82	636.96	614.00
28	623.20	612.84	613.51	613.16	621.90	627.32	614.27	637.11	637.10	636.87	636.99	614.00
29	622.92	613.02	613.86	613.12	---	627.78	614.18	637.00	637.05	636.92	637.05	613.98
30	623.39	613.09	614.03	614.64	---	627.88	614.32	636.93	637.00	636.92	637.09	613.95
31	623.94	---	613.84	615.35	---	628.08	---	637.03	---	636.96	637.12	---
MAX	636.84	623.63	614.37	615.35	622.09	628.08	629.56	637.68	637.35	637.96	637.12	637.18
MIN	622.92	612.84	612.82	613.07	612.99	621.04	614.16	614.34	636.68	636.82	635.36	613.20
(†)	41470	31150	31820	33190	39420	45780	32260	55910	55870	55820	56020	31920
(‡)	-13290	-10320	+670	+1370	+6230	+6360	-13520	+23650	-40	-50	+200	-24100

CAL YR 1986 MAX 638.45 MIN 612.82 AC-FT‡ +580
WTR YR 1987 MAX 637.96 MIN 612.82 AC-FT‡ -22840

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14187100 WILEY CREEK AT FOSTER, OR

LOCATION.--Lat 44°23'55", long 122°39'35", in SW 1/4 NW 1/4 sec.35, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, on left bank 1.5 mi downstream from Jackson Creek, 1.0 mi southeast of Foster, and at mile 1.4.

DRAINAGE AREA.--62.3 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 590 ft, from topographic map. Prior to May 2, 1974, at present site at datum 5.00 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-20, Jan. 12-18, May 8, June 10 to Aug. 9, Aug. 18, Aug. 26 to Sept. 30. Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--14 years, 233 ft³/s, 50.79 in/yr, 168,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,320 ft³/s Jan. 15, 1974, gage height, 9.28 ft; minimum discharge, 3.1 ft³/s Oct. 19, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 21	2400	2,070	7.24	Nov. 28	0630	*2,790	*7.72

Minimum daily discharge, 6.4 ft³/s Sept. 23, 24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	97	435	462	1090	139	140	100	76	16	12	7.4
2	54	62	314	611	1090	138	133	119	57	16	12	7.4
3	46	49	250	577	736	167	129	112	50	16	11	7.2
4	40	44	212	518	563	198	124	96	44	16	11	7.2
5	36	40	184	386	415	187	116	85	41	17	11	7.1
6	34	40	163	306	320	207	120	[illegible]	[illegible]	16	10	7.0
7	32	190	145	250	263	206	113	68	[illegible]	16	10	7.0
8	30	147	133	216	229	186	132	59	[illegible]	15	9.5	7.0
9	28	158	124	189	205	184	121	[illegible]	33	15	9.0	6.9
10	27	166	115	171	185	187	140	49	32	16	9.1	6.9
11	26	131	110	157	176	184	204	[illegible]	31	15	9.6	7.2
12	24	99	136	160	163	279	198	[illegible]	29	14	9.4	7.6
13	23	77	151	175	260	482	172	[illegible]	28	14	9.4	7.8
14	22	124	208	185	427	587	150	[illegible]	27	14	11	8.2
15	21	100	175	170	350	552	136	[illegible]	28	14	11	10
16	21	98	152	160	366	401	127	[illegible]	[illegible]	13	10	9.8
17	22	210	138	145	383	345	132	[illegible]	[illegible]	13	9.2	8.2
18	24	233	129	135	429	402	146	[illegible]	26	120	8.8	7.8
19	23	321	137	128	359	396	138	[illegible]	25	90	8.5	7.5
20	22	457	125	119	291	328	132	[illegible]	24	40	8.2	7.2
21	21	874	115	114	248	275	124	[illegible]	[illegible]	30	8.0	[illegible]
22	20	1120	125	110	227	237	117	[illegible]	[illegible]	30	[illegible]	[illegible]
23	19	760	226	119	226	253	109	[illegible]	[illegible]	28	[illegible]	[illegible]
24	19	617	211	251	208	298	100	[illegible]	[illegible]	24	[illegible]	[illegible]
25	19	519	193	512	187	265	93	[illegible]	22	20	7.9	6.8
26	22	553	226	765	170	243	96	[illegible]	21	18	7.8	[illegible]
27	41	1470	206	680	158	217	79	[illegible]	20	17	7.8	[illegible]
28	40	2020	181	662	148	197	75	39	19	15	7.8	[illegible]
29	34	914	201	557	---	178	70	37	18	14	7.6	6.6
30	77	612	224	463	---	162	74	43	17	13	7.6	6.4
31	141	---	204	578	---	149	---	81	---	12	7.4	---
TOTAL	1070	12302	5651	10041	9872	8229	3730	1938	950	727	286.5	220.2
MEAN	34.5	410	182	324	353	265	124	62.5	31.7	23.5	9.24	7.34
MAX	141	2020	435	765	1090	587	204	119	76	120	12	10
MIN	19	40	110	110	148	138	70	37	17	12	7.4	6.4
AC-FT	2120	24400	11210	19920	19580	16320	7400	3840	1880	1440	568	437
CFSM	.55	6.58	2.93	5.20	5.66	4.26	2.00	1.00	.51	.38	.15	.12
IN.	.64	7.35	3.37	6.00	5.89	4.91	2.23	1.16	.57	.43	.17	.13

CAL YR 1986 TOTAL 76821.9 MEAN 210 MAX 3020 MIN 5.4 AC-FT 152400 CFSM 3.38 IN. 45.87
WTR YR 1987 TOTAL 55016.7 MEAN 151 MAX 2020 MIN 6.4 AC-FT 109100 CFSM 2.42 IN. 32.85

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR

LOCATION.--Lat 44°24'45", long 122°41'15", in SE 1/4 NE 1/4 sec.28, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, on left bank 0.6 mi downstream from Wiley Creek and at mile 37.0.

DRAINAGE AREA.--557 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year. Records for October 1966 to July 1973 (published as South Santiam River at Foster, station 14186700) at site 0.5 mi upstream not equivalent owing to inflow between sites.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since October 1966 by Green Peter Lake (station 14186100) and since December 1966 by Foster Lake (station 14186600). No diversion upstream from station.

AVERAGE DISCHARGE.--14 years, 2,927 ft^3/s, 71.36 in/yr, 2,121,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft^3/s Feb. 26, 1982, gage height, 16.61 ft; minimum discharge, 425 ft^3/s July 26, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,600 ft^3/s Nov. 27, gage height, 15.49 ft; minimum discharge, 466 ft^3/s May 20; minimum daily, 657 ft^3/s May 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3050	3070	12000	3190	9360	1150	1090	806	779	736	725	809
2	2790	2400	10900	4090	8880	1360	1050	821	760	741	726	813
3	2410	1970	9560	4210	7350	1430	1120	822	751	743	725	816
4	2000	2430	6030	3970	6390	1340	1130	799	747	740	724	817
5	1880	3370	5740	3860	6230	1800	1130	789	749	741	723	818
6	1860	3410	5400	3800	5600	1760	1060	774	748	740	725	812
7	1290	3740	5290	3740	3420	1750	1330	775	741	741	725	812
8	1270	3700	4420	3380	3120	1490	2910	765	741	742	724	1220
9	1270	3710	3720	2120	2930	1410	3360	761	742	741	724	1500
10	1270	3740	3120	1910	1650	1420	3510	760	741	743	724	1500
11	1300	3670	2930	1890	1540	1330	3550	753	740	746	724	1500
12	1250	3650	2940	1980	1360	1880	1540	799	741	741	724	1520
13	1250	3650	2960	2160	2110	2830	1160	788	739	741	725	1520
14	2210	3700	3720	2520	2820	3840	1280	774	741	741	733	1660
15	3070	3700	3330	2210	2380	3590	1070	769	738	730	734	1700
16	3090	3700	3250	1950	2480	2970	1020	765	748	722	736	1700
17	1970	4940	3030	1730	2620	2580	1060	763	738	725	753	979
18	1930	7310	2590	1490	2480	3250	1090	757	742	835	733	942
19	1880	7460	2360	1630	1590	3630	986	728	737	829	817	930
20	1630	7770	2320	1480	1260	3160	931	657	740	756	857	936
21	1750	11300	2180	963	1160	3170	883	750	743	742	903	937
22	1840	12200	1990	1100	1080	3160	863	749	742	745	899	935
23	1890	10800	2120	1080	1050	2880	870	748	738	742	904	937
24	1890	11400	2400	1500	1110	2350	860	753	737	735	898	937
25	1890	12100	3350	3050	1020	1910	857	749	738	733	897	938
26	1920	12200	3420	4370	1110	1830	848	749	733	733	813	937
27	2070	11800	3610	8320	1290	1600	841	749	740	732	811	933
28	2080	11600	3530	8010	1260	1420	836	749	739	729	810	937
29	1940	12400	3290	7160	---	1090	833	742	740	722	810	946
30	1900	12200	3220	5970	---	1240	829	745	740	725	812	937
31	2390	---	3210	5940	---	1140	---	780	---	723	810	---
TOTAL	60230	199090	127930	100773	84650	65760	39897	23688	22293	23035	24148	32678
MEAN	1943	6636	4127	3251	3023	2121	1330	764	743	743	779	1089
MAX	3090	12400	12000	8320	9360	3840	3550	822	779	835	904	1700
MIN	1250	1970	1990	963	1020	1090	829	657	733	722	723	809
AC-FT	119500	394900	253700	199900	167900	130400	79140	46990	44220	45690	47900	64820
MEAN†	716	6502	2472	3684	4383	3427	1833	989	516	445	223	150
CFSM†	1.29	11.7	4.44	6.61	7.87	6.15	3.29	1.78	0.93	0.80	0.40	0.27
IN.†	1.48	13.03	5.12	7.63	8.20	7.09	3.67	2.05	1.03	0.92	0.46	0.30
AC-FT†	44010	386900	152000	226500	243400	210700	109100	60840	30680	27340	13700	8920

CAL YR 1986 TOTAL 1054119 MEAN 2888 MAX 16600 MIN 607 AC-FT 2091000 MEAN† 2887 CFSM† 5.18 IN.† 70.37 AC-FT† 2090000
WTR YR 1987 TOTAL 804172 MEAN 2203 MAX 12400 MIN 657 AC-FT 1595000 MEAN† 2091 CFSM† 3.75 IN.† 50.98 AC-FT† 1514000

† Adjusted for change in contents of Green Peter Lake and Foster Lake.

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1973 to current year.

INSTRUMENTATION.--Temperature recorder since July 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 15.5°C at times in 1975, 1978, 1981, 1987; minimum recorded, 2.5°C Mar. 30, 31, 1978, Feb. 1, 1980, Feb. [illegible], 1985.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 15.5°C May 8, Sept. 15-18; minimum, 4.0°C Jan. 16, 17, 20, 21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.5	11.0	11.5	10.0	9.5	10.0	8.0	7.5	8.0	7.0	6.5	7.0
2	11.5	10.5	11.0	[illegible]	9.5	10.0	8.0	8.0	8.0	7.0	6.5	6.5
3	11.5	10.5	11.0	[illegible]	9.5	9.5	8.0	8.0	8.0	7.5	7.0	7.0
4	11.0	10.0	10.5	[illegible]	9.5	9.5	8.0	7.5	8.0	7.0	6.5	6.5
5	11.0	10.5	10.5	[illegible]	9.5	10.0	8.0	8.0	8.0	6.5	6.0	6.0
6	11.0	10.5	10.5	[illegible]	9.5	10.0	8.0	8.0	8.0	6.5	6.0	6.0
7	[illegible]	[illegible]	[illegible]	[illegible]	9.5	9.5	8.0	7.5	7.5	6.0	5.5	5.5
8	[illegible]	[illegible]	[illegible]	[illegible]	9.5	9.5	7.5	7.5	7.5	5.5	5.0	5.0
9	10.5	[illegible]	[illegible]	[illegible]	9.5	9.5	7.5	7.0	7.5	5.5	5.0	5.0
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.0	7.0	7.0	7.0	5.5	5.0	5.5
11	12.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.0	6.5	7.0	6.0	5.0	5.5
12	[illegible]	[illegible]	[illegible]	9.5	9.5	9.5	7.5	7.0	7.0	6.0	6.0	6.0
13	[illegible]	[illegible]	[illegible]	[illegible]	9.5	9.5	7.5	7.5	7.5	5.5	5.5	5.5
14	11.0	11.0	[illegible]	[illegible]	9.5	9.5	8.0	7.5	7.5	5.5	5.0	5.5
15	11.5	[illegible]	[illegible]	[illegible]	9.5	[illegible]	7.5	7.0	7.0	5.0	4.5	5.0
16	11.5	10.5	[illegible]	[illegible]	9.5	[illegible]	7.0	6.5	6.5	4.5	4.0	4.5
17	[illegible]	[illegible]	[illegible]	[illegible]	9.5	9.5	6.5	6.5	6.5	4.5	4.0	4.5
18	[illegible]	[illegible]	10.5	[illegible]	9.5	9.5	6.5	6.5	6.5	5.0	4.5	4.5
19	[illegible]	[illegible]	[illegible]	[illegible]	9.5	[illegible]	7.0	6.5	7.0	5.0	4.5	4.5
20	11.0	10.5	[illegible]	[illegible]	9.5	[illegible]	7.0	6.5	6.5	4.5	4.0	4.5
21	[illegible]	10.0	[illegible]	[illegible]	[illegible]	[illegible]	7.5	6.5	7.0	4.5	4.0	4.5
22	[illegible]	[illegible]	[illegible]	[illegible]	8.5	9.0	7.5	7.0	7.0	4.5	4.5	4.5
23	[illegible]	[illegible]	[illegible]	9.5	8.5	9.0	7.0	7.0	7.0	5.0	4.5	5.0
24	12.0	10.5	[illegible]	9.5	8.5	9.0	7.0	7.0	7.0	5.5	5.0	5.0
25	11.5	10.5	[illegible]	[illegible]	[illegible]	8.5	7.0	6.5	7.0	6.0	5.5	5.5
26	11.5	10.5	[illegible]	9.0	8.5	9.0	7.0	7.0	7.0	7.0	6.0	6.5
27	[illegible]	[illegible]	[illegible]	9.0	8.5	9.0	7.0	6.5	6.5	6.5	6.0	6.5
28	[illegible]	[illegible]	[illegible]	8.5	8.0	8.0	7.0	6.5	6.5	6.5	6.0	6.0
29	[illegible]	[illegible]	[illegible]	8.0	7.5	8.0	7.0	6.5	7.0	6.5	6.0	6.0
30	[illegible]	[illegible]	[illegible]	8.0	7.5	7.5	6.5	6.5	6.5	6.5	6.0	6.0
31	[illegible]	[illegible]	[illegible]	---	---	---	7.0	6.5	6.5	7.0	6.0	6.5
MONTH	12.0	[illegible]	[illegible]	[illegible]	7.5	9.0	8.0	6.5	7.0	7.5	4.0	5.5

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	6.5	6.5	7.5	6.5	[illegible]	---	---	---	12.0	11.5	12.0
2	7.0	6.5	7.0	7.0	6.5	7.0	---	---	---	12.0	11.0	11.5
3	7.0	6.5	7.0	7.5	7.0	7.5	---	---	---	13.5	11.5	12.5
4	7.0	6.5	7.0	8.0	7.5	7.5	---	---	---	12.5	11.5	12.0
5	7.0	6.5	6.5	8.0	7.5	8.0	---	---	---	13.5	12.0	12.5
6	7.0	6.0	6.5	[illegible]	7.0	7.5	---	---	---	14.0	12.5	13.5
7	7.0	6.5	6.5	[illegible]	6.5	[illegible]	---	---	---	14.5	13.5	14.0
8	7.0	6.5	7.0	[illegible]	6.5	[illegible]	---	---	---	15.5	14.0	14.5
9	7.0	6.5	7.0	7.5	7.0	7.5	---	---	---	16.0	14.5	15.5
10	8.0	7.0	7.5	[illegible]	[illegible]	7.5	---	---	---	16.0	13.5	14.5
11	8.0	7.0	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	13.5	14.5
12	7.5	6.5	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	14.5	[illegible]	13.5
13	8.0	7.5	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	13.5	12.5	13.0
14	7.5	6.5	[illegible]	[illegible]	7.0	7.5	---	---	---	13.5	12.0	12.5
15	7.5	7.0	[illegible]	[illegible]	6.5	7.5	---	---	---	12.5	10.5	11.5
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.5	---	---	---	12.0	[illegible]	[illegible]
17	7.5	7.0	[illegible]	[illegible]	[illegible]	7.5	---	---	---	11.0	10.5	[illegible]
18	[illegible]	6.5	[illegible]	[illegible]	6.5	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
19	[illegible]	6.5	6.5	[illegible]	6.5	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
20	[illegible]	6.0	6.5	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	9.5	[illegible]
21	7.0	6.5	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
22	6.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	---	[illegible]	---	---	---	---	[illegible]	[illegible]	[illegible]
25	6.5	[illegible]	[illegible]	---	[illegible]	---	---	---	---	[illegible]	[illegible]	[illegible]
26	6.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	9.5	[illegible]
27	6.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	---	---	---	---	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	---	---	---	---	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	---	---	[illegible]	---	---	---	---	[illegible]	[illegible]	[illegible]
MONTH	8.0	[illegible]	[illegible]	---	---	---	---	---	---	[illegible]	[illegible]	[illegible]

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		[illegible]			[illegible]			[illegible]			[illegible]	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	12.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	12.0	[illegible]	[illegible]	[illegible]	13.0	12.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	12.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	13.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	12.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	12.5	13.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	13.5	11.5	12.5	[illegible]	12.5	13.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	13.5	11.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	13.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	14.0	[illegible]	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	13.5	[illegible]	12.5	13.5	12.5	13.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	---	13.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---
MONTH	14.0	10.0	[illegible]	[illegible]	12.0	12.5	14.5	11.5	13.0	[illegible]	[illegible]	[illegible]

14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR

LOCATION.--Lat 44°29'55", long 122°49'20", in SW 1/4 NW 1/4 sec.28, T.12 S., R.1 W., Linn County, Hydrologic Unit 17090006, on left bank 0.1 mi downstream from highway bridge at Waterloo, 2.1 mi upstream from Hamilton Creek, and at mile 23.3.

DRAINAGE AREA.--640 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to December 1911 (gage heights only January to December 1911), July 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as South Fork of Santiam River at Waterloo 1905-07, 1910-11.

REVISED RECORDS.--WSP 1248: 1907, 1924-30, 1932.

GAGE.--Water-stage recorder. Datum of gage is 370.39 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1911, nonrecording gage at site 0.5 mi downstream at datum about 5.0 ft lower. July 1, 1923, to Nov. 12, 1934, nonrecording gage, at present site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since October 1966 by Green Peter Lake (station 14186100) and since December 1966 by Foster Lake (station 14186600). No diversion upstream from station.

AVERAGE DISCHARGE.--65 years (water years 1906, 1924-87), 2,944 ft^3/s, 2,133,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,200 ft^3/s Dec. 22, 1964, gage height, 24.50 ft; minimum discharge, 61 ft^3/s Oct. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,700 ft^3/s Nov. 27, gage height, 9.26 ft; minimum discharge, 457 ft^3/s May 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3150	3060	12200	3490	9760	1320	1250	877	819	719	693	790
2	2960	2500	11300	4500	9970	1470	1180	903	780	722	696	793
3	2500	2040	9690	4580	7820	1670	1230	883	763	722	691	800
4	2150	2230	6580	4370	6910	1470	1240	845	761	725	688	801
5	1960	3340	6000	4180	6620	1940	1240	827	756	721	685	803
6	1940	3390	5550	4090	5970	1980	1190	803	759	717	687	803
7	1430	3770	5420	3980	3940	1960	1320	803	743	711	687	798
8	1320	3750	4730	3690	3400	1730	2750	789	744	717	685	1090
9	1320	3770	3850	2490	3170	1650	3420	782	742	710	681	1540
10	1320	3810	3350	2120	2110	1610	3580	772	740	716	683	1550
11	1360	3730	3070	2090	1770	1650	3770	765	738	720	681	1550
12	1300	3700	3110	2190	1590	2090	1970	847	740	714	681	1570
13	1300	3710	3140	2430	2220	3200	1380	840	742	707	681	1580
14	2060	3790	3800	2750	3160	4160	1420	804	740	705	690	1690
15	3130	3790	3560	2510	2680	4090	1200	797	740	693	695	1770
16	3150	3790	3410	2220	2760	3370	1130	790	749	689	696	1770
17	2170	4940	3230	1960	2960	2850	1170	789	736	695	712	1150
18	1990	7220	2790	1700	2980	3720	1290	774	735	883	688	969
19	1970	7620	2510	1780	2040	4060	1130	771	732	922	756	952
20	1700	7690	2460	1700	1610	3580	1050	633	739	770	811	959
21	1770	11500	2340	1160	1430	3470	1000	765	750	737	890	959
22	1870	12800	2130	1230	1330	3410	953	764	745	731	884	953
23	1930	11100	2270	1260	1340	3330	952	762	737	730	890	959
24	1930	11400	2490	1720	1330	2770	935	780	728	723	883	958
25	1920	12200	3400	3350	1240	2220	924	772	734	715	889	963
26	1940	12400	3650	5030	1270	2110	907	767	724	710	807	964
27	2090	13600	3730	8300	1440	1910	891	761	727	710	788	954
28	2100	12900	3760	8440	1480	1640	883	760	730	708	787	956
29	1990	12900	3470	7570	---	1320	874	754	730	694	792	965
30	1940	12500	3400	6450	---	1400	878	766	727	691	790	961
31	2310	---	3380	6200	---	1290	---	809	---	691	790	---
TOTAL	61970	204940	133770	109530	94300	74440	43107	24554	22330	22518	23157	33320
MEAN	1999	6831	4315	3533	3368	2401	1437	792	744	726	747	1111
MAX	3150	13600	12200	8440	9970	4160	3770	903	819	922	890	1770
MIN	1300	2040	2130	1160	1240	1290	874	633	724	689	681	790
AC-FT	122900	406500	265300	217300	187000	147700	85500	48700	44290	44660	45930	66090

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CAL YR 1986   TOTAL 1097291  MEAN 3006  MAX 16700  MIN 597  AC-FT 2176000
WTR YR 1987   TOTAL  847936  MEAN 2323  MAX 13600  MIN 633  AC-FT 1682000
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14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1963 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, [illegible] Aug. [illegible], 1966; minimum, [illegible] Dec. 18-20, 1965, Feb. 1, 2, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, [illegible] May [illegible]; minimum, 3.5°C Jan. 21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.0	11.0	11.5	[illegible]	10.0	10.5	---	---	---	7.0	7.0	7.0
2	12.5	10.5	11.5	[illegible]	9.5	10.0	---	---	---	7.0	7.0	7.0
3	13.0	10.0	11.5	[illegible]	9.5	10.0	---	---	---	7.5	7.0	7.0
4	13.0	10.0	11.5	[illegible]	9.5	10.0	---	---	---	7.5	6.5	7.0
5	13.0	10.0	11.5	[illegible]	10.0	10.5	---	---	---	7.0	6.5	6.5
6	13.0	10.0	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	7.0	6.5	6.5
7	13.0	10.5	[illegible]	[illegible]	9.5	[illegible]	---	---	---	6.5	6.0	6.0
8	12.5	10.0	11.5	[illegible]	9.5	[illegible]	---	---	---	6.0	5.5	5.5
9	11.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.5	7.0	[illegible]	6.0	5.0	5.5
10	12.0	[illegible]	[illegible]	[illegible]	[illegible]	9.5	[illegible]	6.5	7.0	6.0	5.0	5.5
11	[illegible]	9.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.5	7.0	6.5	5.0	6.0
12	12.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.5	6.0	6.5
13	12.5	9.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.0	5.5	6.0
14	12.5	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	6.0	5.0	6.0
15	12.5	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	5.5	4.5	5.0
16	[illegible]	[illegible]	[illegible]	---	---	---	---	---	---	5.5	4.0	4.5
17	[illegible]	[illegible]	[illegible]	---	---	---	---	---	---	5.0	4.0	4.5
18	12.0	[illegible]	[illegible]	---	---	---	---	---	---	5.5	4.0	4.5
19	12.0	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	12.0	[illegible]	[illegible]	---	---	---	[illegible]	7.0	7.0	5.5	4.5	5.0
21	11.5	[illegible]	[illegible]	---	---	---	8.0	[illegible]	[illegible]	4.5	3.5	4.5
22	11.0	[illegible]	[illegible]	---	---	---	8.0	[illegible]	[illegible]	5.0	4.0	4.5
23	11.5	[illegible]	[illegible]	---	---	---	7.5	[illegible]	[illegible]	6.0	5.0	5.5
24	12.0	[illegible]	[illegible]	---	---	---	7.5	[illegible]	7.5	6.0	5.5	6.0
25	11.5	10.0	[illegible]	---	---	---	[illegible]	7.0	7.0	6.0	5.5	6.0
26	11.5	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	6.5	6.0	6.0
27	11.5	10.5	11.5	---	---	---	[illegible]	[illegible]	[illegible]	6.5	6.0	6.5
28	11.5	10.0	[illegible]	---	---	---	[illegible]	6.5	[illegible]	6.5	6.0	6.0
29	11.0	10.0	10.5	---	---	---	[illegible]	7.0	7.5	6.5	6.0	6.5
30	11.0	10.5	[illegible]	---	---	---	[illegible]	6.5	6.5	7.0	6.0	6.5
31	11.0	10.5	[illegible]	---	---	---	[illegible]	6.5	[illegible]	7.0	6.0	6.5
MONTH	13.0	9.5	[illegible]	---	---	---	---	---	---	7.5	3.5	6.0

14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	6.5	6.5	7.5	6.5	7.0	12.0	8.0	10.0	13.0	12.0	12.5
2	7.0	6.5	7.0	7.5	6.5	7.0	11.5	8.0	10.0	12.5	11.5	12.0
3	7.0	6.5	7.0	8.0	7.5	7.5	11.0	8.0	9.5	16.0	12.0	14.0
4	7.5	6.5	7.0	8.5	7.5	8.0	10.5	8.0	9.0	15.0	13.0	13.5
5	7.5	6.5	7.0	9.0	7.5	8.0	10.0	8.0	9.0	17.0	12.0	14.5
6	7.0	6.5	6.5	8.5	7.5	8.0	10.5	[illegible]	[illegible]	18.0	13.0	16.0
7	7.0	6.5	6.5	8.5	6.5	7.5	11.0	[illegible]	[illegible]	[illegible]	15.0	17.0
8	7.5	6.5	7.0	7.5	[illegible]	[illegible]	11.0	[illegible]	[illegible]	[illegible]	16.0	17.0
9	7.5	6.5	[illegible]	8.0	[illegible]	[illegible]	12.0	[illegible]	[illegible]	[illegible]	[illegible]	17.0
10	8.0	7.0	[illegible]	[illegible]	[illegible]	8.0	12.5	[illegible]	[illegible]	[illegible]	16.0	17.0
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16.0	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12.0	13.5
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		[illegible]			[illegible]			[illegible]			[illegible]	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	---	[illegible]	[illegible]	[illegible]	17.0	[illegible]	16.0	---	---	---
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

14188800 THOMAS CREEK NEAR SCIO, OR

LOCATION.--Lat 44°42'42", long 122°45'55", in SE 1/4 SE 1/4 sec.11, T.10 S., R.1 W., Linn County, Hydrologic Unit 17090006, on left bank 0.3 mi upstream from bridge on State Highway 226, 1.6 mi upstream from Mill Creek, 4.2 mi east of Scio, and at mile 14.6.

DRAINAGE AREA.--109 mi^2.

PERIOD OF RECORD.--October 1962 to September 1987 (discontinued).

REVISED RECORDS.--WDR OR-71-1: 1965(P), 1966(P), 1969(P).

GAGE.--Water-stage recorder. Datum of gage is 380.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 28 to July 15. Records good Oct. 1 to June 22; fair thereafter. No regulation. Several small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--25 years, 496 ft^3/s, 61.80 in/yr, 359,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft^3/s Dec. 22, 1964, gage height, 18.44 ft, from rating curve extended above 7,200 ft^3/s, on basis of slope-area measurement of peak flow; maximum gage height, 19.58 ft Jan. 21, 1972, backwater from debris; minimum discharge, 7.8 ft^3/s Aug. 20, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	0130	5,250	9.13	Feb. [illegible]	1130	5,193	[illegible]
Nov. 28	0700	*5,770	*9.68				

Minimum discharge, 13 ft^3/s Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	316	1080	1130	[illegible]	328	323	224	266	44	42	15
2	144	213	849	1240	[illegible]	438	310	289	196	43	41	14
3	120	156	693	1160	[illegible]	738	304	314	165	43	38	14
4	103	129	587	1110	[illegible]	797	288	261	144	44	35	16
5	94	110	512	943	[illegible]	697	264	225	130	44	33	16
6	83	108	444	772	812	835	268	194	125	41	31	27
7	74	342	383	643	[illegible]	659	236	173	113	40	[illegible]	16
8	61	297	357	544	614	564	427	158	103	38	[illegible]	[illegible]
9	56	299	319	471	543	577	[illegible]	142	102	35	[illegible]	[illegible]
10	54	284	292	422	488	612	431	131	95	33	27	27
11	50	235	277	381	[illegible]	621	728	125	92	31	18	11
12	45	196	293	467	446	1050	622	231	85	36	[illegible]	19
13	41	175	357	517	597	1250	517	284	79	[illegible]	[illegible]	22
14	41	201	478	636	846	1450	442	225	75	38	[illegible]	22
15	38	177	442	519	741	1220	383	203	74	33	[illegible]	31
16	38	216	372	446	771	946	345	180	72	32	33	31
17	39	951	331	397	817	976	404	164	70	31	33	26
18	53	906	308	363	883	1220	455	154	65	288	[illegible]	22
19	47	1090	341	337	736	951	409	142	60	163	25	21
20	42	1580	298	308	634	814	376	137	58	127	25	20
21	40	2760	277	290	561	710	354	130	90	107	21	19
22	39	3400	325	276	513	618	328	119	81	103	23	13
23	38	2060	611	333	487	720	301	114	68	88	23	[illegible]
24	37	1670	554	1010	432	691	274	111	60	75	22	[illegible]
25	36	1300	498	1440	385	612	249	112	56	67	19	[illegible]
26	41	1880	744	1630	354	569	228	109	52	60	19	22
27	75	4300	614	1480	329	501	208	103	48	56	18	24
28	67	4490	514	1400	307	452	193	100	47	50	16	[illegible]
29	57	2300	508	1200	---	405	177	99	46	48	16	18
30	237	1480	456	1050	---	369	177	142	45	45	16	18
31	407	---	421	1920	---	345	---	283	---	44	16	---
TOTAL	2471	33123	14545	24895	24227	22423	10508	5444	2763	2078	838	581
MEAN	79.7	1104	469	803	865	723	350	176	92.1	67.0	27.0	19.4
MAX	407	4490	1080	1920	3810	1450	728	314	266	288	42	31
MIN	36	108	277	273	307	328	177	99	45	31	16	13
MED	53	329	440	636	624	691	328	154	77	44	27	18
AC-FT	4900	65700	28850	49380	48050	44480	20840	10800	5480	4120	1660	1150
CFSM	.73	10.1	4.30	7.37	7.94	6.64	3.21	1.61	.84	.61	.25	.18
IN.	.84	11.30	4.96	8.50	8.27	7.65	3.59	1.86	.94	.71	.29	.20

CAL YR 1986 TOTAL 172082 MEAN 471 MAX 6330 MIN 19 MED 283 AC-FT 341300 CFSM 4.33 IN. 58.73
WTR YR 1987 TOTAL 143896 MEAN 394 MAX 4490 MIN 14 MED 213 AC-FT 285400 CFSM 3.62 IN. 49.11

14189000 SANTIAM RIVER AT JEFFERSON, OR

LOCATION.--Lat 44°42'55", long 122°00'40", in SE 1/4 sec.11, T.10 S., R.3 W., Marion County, Hydrologic Unit 17090005, on right bank 350 ft upstream from Southern Pacific railroad bridge at Jefferson, 2.1 mi downstream from confluence of North and South Santiam Rivers, and at mile 9.6?.

DRAINAGE AREA.--1,790 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to June 1906 (gage heights and discharge measurements only), October 1907 to September 1916, October 1939 to current year. Gage-height records collected at same site since 1907 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 904: Drainage area. WSP 1094: 1908, 1910, 1912, 1943. WSP 1248: 1911, 1915-16(M). WSP 1935: 1909.

GAGE.--Water-stage recorder. Datum of gage is 199.63 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 22, 1940, nonrecording gages at sites within 350 ft downstream at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since 1953 by Detroit Lake (station 14180500), since 1966 by Green Peter Lake (station 14186100) and by Foster Lake (station 14186600). Salem Canal diverts from North Santiam River at Stayton for irrigation and power; most of this water reaches Willamette River by way of Mill Creek at Salem. Stayton Canal diverts from North Santiam River at Stayton for irrigation of lands near town of West Stayton; some return flow reaches North Santiam River upstream from station. Albany power canal diverts from South Santiam River at Lebanon; return flow reaches Willamette River at Albany.

AVERAGE DISCHARGE.--57 years (water years 1908-16, 1940-87), 7,795 ft³/s, 5,647,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 194,000 ft³/s Dec. 22, [illegible], gage height, 24.22 ft; minimum discharge observed, 260 ft³/s Aug. 18-22, Aug. 24 to Sept. 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of [illegible] ft was reached in December 1861, and 23.4 ft in February 1890 (information from Corps of Engineers). On Nov. 21, 1921, the stage reached [illegible] ft at gage on railroad bridge 350 ft downstream, corresponding gage height at present site and datum, [illegible] ft, from curve of relation, discharge, [illegible] ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, [illegible] ft³/s Nov. [illegible], gage height, [illegible] ft; minimum daily discharge, 1,110 ft³/s July [illegible].

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5530	[illegible]	28900	[illegible]	[illegible]	[illegible]	4440	[illegible]	2390	1260	1210	1380
2	6760	[illegible]	24900	11800	[illegible]	5300	4460	4100	[illegible]	1440	[illegible]	1390
3	5930	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4480	3900	2360	1290	1280	1430
4	5240	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4410	4170	2270	1320	1210	1390
5	4690	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4270	3920	2190	1380	1220	1410
6	4600	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3690	2870	2120	1380	1190	1390
7	4310	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2020	1390	1180	1470
8	4240	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1920	1320	1170	1430
9	3900	[illegible]	8470	[illegible]	[illegible]	[illegible]	6110	2820	1690	1310	[illegible]	[illegible]
10	3690	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4920	2850	1620	1340	1220	[illegible]
11	3800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8130	[illegible]	[illegible]	1340	1220	[illegible]
12	3880	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8130	[illegible]	[illegible]	1290	[illegible]	[illegible]
13	3780	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1220	[illegible]	[illegible]
14	4310	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2610	[illegible]	[illegible]	1330	[illegible]
15	4540	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4970	[illegible]	[illegible]	[illegible]	1340	[illegible]
16	5230	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4220	2880	1650	1120	1330	[illegible]
17	4970	[illegible]	[illegible]	[illegible]	[illegible]	8610	6120	2480	1650	1170	1320	[illegible]
18	4440	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4630	2390	1580	1860	1280	[illegible]
19	4430	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4270	2320	1390	2850	1280	[illegible]
20	5260	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3990	2170	1480	2240	1380	[illegible]
21	4240	[illegible]	8300	3940	3140	9390	3330	2100	1640	1790	1440	2740
22	4230	34600	9280	5650	3140	8930	3440	2040	1670	1390	1450	2730
23	4220	29500	6930	3900	3140	8360	3710	2010	1600	1330	1490	2710
24	4250	24100	6230	6110	4780	7690	3350	2410	1520	1650	1450	2720
25	4140	28100	7720	11500	5510	6950	3270	2390	1490	1540	1470	2770
26	4140	29900	9200	15100	3950	6270	3150	2120	1380	1530	1410	2800
27	4410	[illegible]	8660	17900	4020	5620	3080	2230	1330	1500	1380	2840
28	4480	[illegible]	8450	18800	4260	5010	3070	2140	1340	1380	1380	2820
29	4420	[illegible]	8070	18700	---	4610	2980	1980	1320	1320	1400	2820
30	4690	41200	7940	14800	---	4290	2870	2000	1300	1290	1420	2880
31	6100	---	7650	15500	---	4100	---	2630	---	1290	1400	---
TOTAL	143680	488400	318770	283930	282090	226960	127870	78220	53020	45090	40770	71880
MEAN	4635	16280	10280	9159	10070	7321	4262	2523	1767	1455	1315	2396
MAX	7070	41200	28900	18800	28200	12300	8130	3320	2990	2850	1480	3220
MIN	3760	5230	5080	3650	4150	4050	2870	1960	1300	1110	1170	1380
AC-FT	285000	968800	632300	563200	559500	450200	253600	155100	105200	89440	80870	142600

CAL YR 1986 TOTAL 2809540 MEAN 7697 MAX 58800 MIN 1150 AC-FT 5573000
WTR YR 1987 TOTAL 2160710 MEAN 5920 MAX 41200 MIN 1110 AC-FT 4286000

14189000 SANTIAM RIVER AT JEFFERSON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1963 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 23.5°C Aug. 8, 1971, Aug. 1, 1973, Aug. 9, 1981; minimum, 0.0°C Jan. 1, 1979, Dec. 24, 1983.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 23.0°C June 27, 29, 30 July 13, 14; minimum, 3.0°C Jan. 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	12.0	12.5	12.0	11.5	11.5	8.0	8.0	8.0	7.0	6.5	7.0
2	13.0	11.5	12.0	12.0	11.0	11.5	8.0	8.0	8.0	6.5	6.0	6.5
3	13.5	12.0	13.0	12.0	11.0	11.5	8.0	7.5	8.0	7.0	6.5	7.0
4	14.0	12.5	13.5	11.5	11.0	11.5	7.5	7.5	7.5	7.0	6.5	7.0
5	14.0	13.0	13.5	12.0	11.5	12.0	8.0	7.5	8.0	6.5	6.0	6.0
6	14.5	13.0	14.0	12.0	11.0	11.5	8.0	7.5	8.0	6.0	5.5	6.0
7	14.5	13.0	14.0	11.5	10.5	11.0	7.5	7.5	7.5	5.5	5.0	5.0
8	14.5	13.0	14.0	11.0	10.0	10.5	7.5	7.0	7.0	5.0	4.5	4.5
9	14.0	13.0	13.5	11.0	10.0	10.5	6.5	6.5	6.5	4.5	4.0	4.5
10	14.0	12.5	13.5	10.0	9.5	9.5	6.5	5.5	6.0	5.0	4.5	5.0
11	13.5	12.0	13.0	10.5	9.5	10.0	6.5	6.0	6.0	6.0	5.0	5.5
12	13.5	12.0	13.0	10.5	10.0	10.5	7.0	6.5	7.0	6.5	6.0	6.5
13	13.5	12.0	13.0	10.5	9.5	10.0	7.5	7.0	7.5	6.5	6.0	6.0
14	13.5	12.0	13.0	10.5	10.0	10.5	7.5	7.5	7.5	6.0	5.0	5.5
15	13.0	12.0	12.5	10.5	10.5	10.5	7.5	6.5	7.0	5.0	4.0	4.5
16	13.0	12.0	12.5	10.5	10.0	10.5	6.5	6.0	6.0	4.0	3.5	3.5
17	13.0	12.5	12.5	10.5	9.5	10.0	6.0	6.0	6.0	3.5	3.0	3.5
18	13.5	12.5	13.0	10.0	9.5	10.0	6.0	5.5	5.5	4.5	3.5	4.0
19	13.0	12.5	12.5	10.0	9.5	10.0	6.5	6.0	6.0	5.0	4.5	4.5
20	13.0	12.5	12.5	10.5	10.0	10.0	6.5	6.0	6.0	4.5	4.0	4.5
21	13.0	12.5	12.5	10.0	9.5	9.5	7.0	6.0	6.5	4.0	3.5	4.0
22	12.5	12.5	12.5	9.5	9.0	9.0	7.5	7.0	7.5	4.5	4.0	4.0
23	13.0	12.5	12.5	10.0	9.0	9.5	7.5	7.0	7.5	6.0	4.5	5.0
24	13.5	13.0	13.0	10.0	9.0	9.5	7.5	7.0	7.0	6.5	6.0	6.0
25	14.0	13.5	13.5	8.5	8.0	8.5	7.0	6.5	6.5	6.5	6.0	6.0
26	14.0	13.5	13.5	9.0	8.5	9.0	7.5	6.5	7.0	7.0	6.5	6.5
27	14.0	13.0	13.5	9.0	8.5	9.0	7.0	6.5	6.5	7.0	6.5	6.5
28	13.5	12.5	12.5	8.5	8.5	8.5	6.5	5.5	6.0	6.5	6.0	6.5
29	12.5	12.0	12.5	8.5	8.0	8.5	7.5	6.5	7.0	6.5	6.0	6.5
30	12.5	12.5	12.5	8.0	7.5	7.5	7.0	6.0	6.0	7.0	6.5	6.5
31	12.5	12.0	12.5	---	---	---	6.5	6.0	6.0	7.0	6.0	6.5
MONTH	14.5	11.5	13.0	12.0	7.5	10.0	8.0	5.5	7.0	7.0	3.0	5.5

14189000 SANTIAM RIVER AT JEFFERSON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	7.0	7.0	7.5	6.5	7.0	12.5	10.0	11.5	12.5	11.0	12.0
2	7.5	7.0	7.0	7.5	7.0	7.5	13.0	11.0	12.0	11.5	10.5	11.0
3	7.0	7.0	7.0	8.0	7.5	8.0	12.0	10.0	11.0	14.5	10.0	12.0
4	7.0	6.5	7.0	8.5	8.0	8.5	11.0	9.0	10.0	15.0	13.0	13.5
5	7.0	6.5	6.5	9.0	8.0	8.5	10.5	9.0	9.5	16.0	12.5	14.5
6	6.5	6.0	6.5	9.0	8.0	8.0	10.0	8.5	9.5	18.0	14.5	16.5
7	6.5	6.0	6.5	8.0	7.0	7.5	11.5	9.5	10.5	19.5	16.0	17.5
8	7.0	6.5	7.0	8.0	7.5	7.5	11.5	10.5	11.0	20.5	17.0	18.5
9	7.0	6.5	7.0	8.0	7.5	7.5	10.5	9.0	10.0	20.0	16.5	18.5
10	8.0	7.0	7.5	9.0	8.0	8.5	10.5	9.5	10.0	19.5	16.0	17.5
11	9.0	8.0	8.5	8.5	8.5	8.5	9.5	8.0	9.0	18.5	15.5	17.0
12	8.0	7.0	7.5	8.5	8.5	8.5	10.5	7.5	9.0	17.0	15.0	16.0
13	8.0	7.5	8.0	8.5	8.5	8.5	11.0	9.0	10.5	16.0	13.5	14.5
14	8.0	7.0	7.0	8.5	8.0	8.0	12.5	10.0	11.5	16.0	14.5	15.0
15	7.5	7.0	7.0	8.5	7.0	7.5	13.5	11.5	12.5	15.0	13.5	14.0
16	7.0	6.5	7.0	8.0	7.0	7.5	12.5	11.0	12.0	15.0	12.0	13.5
17	7.0	6.5	7.0	9.0	7.5	8.0	12.0	9.5	11.0	14.0	13.0	13.5
18	7.0	6.0	6.5	8.5	7.0	7.5	10.5	8.5	9.5	15.0	11.5	13.0
19	7.5	6.0	7.0	7.5	6.0	7.0	11.0	8.0	9.5	15.0	11.5	13.0
20	7.5	6.5	7.0	8.0	7.0	7.5	12.0	9.0	10.5	16.0	12.0	14.0
21	7.5	7.0	7.5	8.5	6.5	7.5	13.0	10.5	11.5	17.0	13.0	15.0
22	7.5	6.5	7.0	8.5	6.5	8.0	14.0	11.5	12.5	17.0	13.0	15.0
23	7.5	6.0	6.5	9.0	7.5	8.5	14.5	12.0	13.0	16.5	13.0	15.0
24	6.5	5.5	6.0	9.5	7.5	8.5	14.0	11.5	12.5	15.0	12.5	13.5
25	6.0	5.0	5.5	8.5	7.5	8.0	13.5	10.5	12.0	12.0	11.5	12.0
26	6.0	5.0	5.5	9.0	7.0	8.0	15.0	11.5	13.0	13.0	11.0	12.0
27	6.5	5.5	6.0	9.0	7.0	8.0	16.5	13.0	15.0	12.5	11.5	11.5
28	7.0	6.0	6.5	9.5	7.0	8.5	15.5	13.5	14.5	12.5	10.5	11.5
29	---	---	---	10.0	7.5	9.0	15.0	12.0	13.5	15.0	11.5	13.0
30	---	---	---	11.0	8.0	9.5	14.5	12.5	13.5	14.0	13.0	13.5
31	---	---	---	11.5	9.0	10.5	---	---	---	13.5	11.5	12.5
MONTH	9.0	5.0	7.0	11.5	6.0	8.0	16.5	7.5	11.5	20.5	10.0	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	11.5	13.0	21.5	18.5	20.0	18.0	15.5	17.0	20.5	17.5	19.0
2	16.5	12.0	14.0	20.5	17.5	18.5	19.5	15.0	17.5	18.5	16.0	17.0
3	18.5	14.0	16.0	19.0	16.5	17.5	21.0	16.5	19.0	17.5	14.5	16.0
4	19.5	16.0	17.5	17.5	16.0	16.5	22.0	17.5	19.5	18.0	15.0	16.5
5	17.0	15.0	16.0	17.0	15.0	16.0	21.5	17.5	19.5	19.0	15.5	17.0
6	18.0	13.5	15.5	18.0	15.0	16.5	21.0	17.0	19.0	19.0	16.0	17.5
7	19.0	15.0	17.0	17.0	15.5	16.5	21.5	17.0	19.0	18.0	16.0	17.0
8	18.0	15.5	16.5	17.5	15.0	16.5	22.5	18.0	20.0	17.0	15.0	16.0
9	18.5	14.5	16.5	17.0	15.0	16.0	21.5	18.5	20.0	18.0	14.5	16.0
10	18.5	15.0	16.5	19.5	15.5	17.0	19.5	18.0	18.5	16.5	15.0	16.0
11	19.5	15.0	17.0	20.5	16.5	18.5	19.0	16.5	17.5	15.5	14.5	15.0
12	19.5	15.5	17.5	22.5	17.5	20.0	20.0	16.0	18.0	14.5	14.0	14.0
13	21.0	16.0	18.5	23.0	18.5	20.5	18.0	16.5	17.5	15.0	13.5	14.0
14	20.5	17.0	18.5	23.0	19.0	21.0	17.0	15.5	16.0	14.5	13.5	13.5
15	18.0	15.0	16.0	21.5	18.0	19.5	17.5	15.0	16.0	14.5	13.0	13.5
16	14.5	13.5	14.0	18.0	16.0	17.0	18.5	15.0	16.5	15.0	13.0	14.0
17	17.5	13.0	15.0	16.0	15.0	15.0	19.0	15.0	17.0	15.0	13.5	14.5
18	19.0	14.5	16.5	14.5	13.5	14.0	19.5	15.5	17.5	15.5	13.5	14.5
19	20.0	15.5	18.0	17.5	13.0	15.0	20.5	16.5	18.0	15.5	13.5	14.5
20	18.0	15.5	16.5	20.0	16.0	18.0	19.5	16.5	18.0	15.5	14.0	15.0
21	16.0	14.5	15.0	19.0	16.5	18.0	19.0	15.5	17.0	15.5	13.5	15.0
22	18.0	13.0	15.5	17.5	15.5	16.5	18.0	15.5	17.0	16.5	14.0	15.5
23	19.5	15.0	17.0	18.5	14.5	16.5	19.0	16.0	17.5	16.0	14.5	15.5
24	20.0	15.5	18.0	18.5	16.0	17.5	19.5	16.0	18.0	15.0	14.0	14.5
25	21.5	16.5	19.0	19.5	16.5	18.0	20.0	16.0	18.0	14.5	13.5	14.0
26	22.5	18.0	20.5	18.0	16.5	17.0	20.0	16.5	18.5	15.0	13.5	14.0
27	23.0	18.5	20.5	18.0	15.0	16.5	20.0	16.5	18.5	14.5	13.0	14.0
28	22.5	18.5	20.5	19.5	15.5	17.5	20.0	16.5	18.0	15.0	13.0	14.5
29	23.0	18.5	21.0	20.0	16.5	18.0	19.5	16.0	18.0	15.5	13.5	14.5
30	23.0	19.0	21.0	18.5	17.0	18.0	20.0	16.5	18.0	15.5	14.0	15.0
31	---	---	---	19.5	16.0	17.5	21.0	17.5	19.0	---	---	---
MONTH	23.0	11.5	17.0	23.0	13.0	17.5	22.5	15.0	18.0	20.5	13.0	15.0
YEAR	23.0	3.0	12.0									

14190500 LUCKIAMUTE RIVER NEAR SUVER, OR

LOCATION.--Lat 44°47′00″, long 123°14′00″, in SW 1/4 SW 1/4 sec.18, T.9 S., R.4 W., Polk County, Hydrologic Unit 17090003, on right bank 10 ft upstream from highway bridge at Helmick State Park, 3.0 mi northwest of Suver, 4.7 mi downstream from Little Luckiamute River, and at mile 13.5.

DRAINAGE AREA.--240 mi^2.

PERIOD OF RECORD.--August 1905 to October 1911, July 1940 to current year.

REVISED RECORDS.--WSP 1044: Drainage area. WSP 1094: 1945-46. WSP 1248: 1905-11.

GAGE.--Water-stage recorder. Datum of gage is 171.92 ft above National Geodetic Vertical Datum of 1929. Aug. 18, 1905, to Oct. 31, 1911, nonrecording gage at present site at different datum, Aug. 20 to Oct. 15, 1940, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records fair. Some diurnal fluctuation during periods of low flow caused by millpond upstream from station. A few small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--53 years, 905 ft^3/s, 51.20 in/yr, 655,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,900 ft^3/s Dec. 22, 1964, gage height, 34.52 ft; minimum discharge, 0.65 ft^3/s Aug. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	2030	*12,500	*29.63	No other peak greater than base discharge.			

Minimum discharge, 16 ft^3/s Sept. 1, 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	465	2280	2230	8590	728	535	283	259	51	40	20
2	93	283	1660	3220	9740	904	504	326	199	50	40	18
3	83	211	1300	2930	6540	1920	487	469	170	54	41	17
4	76	171	1060	3440	4470	3420	472	376	151	56	36	17
5	70	148	927	3260	3170	2520	447	329	141	64	33	18
6	66	134	821	2690	2460	1820	472	300	137	73	33	18
7	62	137	722	2240	1970	1430	450	277	131	59	33	21
8	59	202	651	1750	1620	1180	436	258	123	55	32	21
9	57	182	591	1430	1360	1170	418	240	117	54	33	21
10	55	211	542	1210	1180	1820	399	227	112	55	34	22
11	53	188	504	1050	1040	1700	457	220	109	54	33	23
12	52	171	522	1010	936	2410	497	214	107	53	35	22
13	51	156	522	1140	1220	3010	451	216	102	51	36	26
14	49	148	719	1710	2140	3070	420	204	98	44	35	29
15	50	141	806	1680	2030	2720	394	198	98	39	39	30
16	50	133	688	1330	2660	2220	372	192	94	35	39	34
17	50	273	614	1120	2860	1920	374	183	94	41	38	34
18	52	481	566	984	2750	1790	433	177	92	57	34	29
19	53	717	564	887	2360	1600	382	168	88	133	31	27
20	52	861	528	802	1930	1420	357	164	82	115	29	27
21	51	1860	494	733	1610	1250	340	158	90	77	29	25
22	50	2020	497	681	1340	1090	325	152	98	64	29	25
23	49	2320	1090	738	1220	1060	311	149	84	61	28	22
24	49	3640	1200	951	1040	974	296	147	76	58	29	21
25	51	4530	1180	1800	917	873	285	148	70	54	27	21
26	74	3290	1460	2720	827	806	275	146	63	52	24	22
27	170	3800	1390	3210	759	742	265	140	62	54	23	25
28	181	5560	1170	3110	705	692	257	137	59	47	23	26
29	127	5240	1930	3020	---	646	247	138	62	44	24	24
30	131	3470	2700	2560	---	602	242	140	55	42	24	23
31	368	---	2110	2720	---	567	---	244	---	41	23	---
TOTAL	2536	41143	31808	58356	69444	48074	11600	6720	3223	1787	987	708
MEAN	81.8	1371	1026	1882	2480	1551	387	217	107	57.6	31.8	23.6
MAX	368	5560	2700	3440	9740	3420	535	469	259	133	41	34
MIN	49	133	494	681	705	567	242	137	55	35	23	17
AC-FT	5030	81610	63090	115700	137700	95350	23010	13330	6390	3540	1960	1400
CFSM	.34	5.71	4.28	7.84	10.3	6.46	1.61	.90	.45	.24	.13	.10
IN.	.39	6.38	4.93	9.05	10.76	7.45	1.80	1.04	.50	.28	.15	.11

CAL YR 1986 TOTAL 277019 MEAN 759 MAX 9350 MIN 24 AC-FT 549500 CFSM 3.16 IN. 42.94
WTR YR 1987 TOTAL 276386 MEAN 757 MAX 9740 MIN 17 AC-FT 548200 CFSM 3.16 IN. 42.84

14191000 WILLAMETTE RIVER AT SALEM, OR

LOCATION.--Lat 44°56′40″, long 123°02′30″, in SE 1/4 SW 1/4 sec. 22, T.7 S., R.3 W., Marion County, Hydrologic Unit 17090007, on right bank 300 ft upstream from Center Street Bridge in Salem and at mile 84.16.

DRAINAGE AREA.--7,280 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1909 to December 1916, January 1923 to current year. Monthly discharge only January 1923 to September 1927, published in WSP 1318. Gage-height records collected at about the same site since 1892 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1318: 1915(M).

GAGE.--Water-stage recorder. Datum of gage is 106.14 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1909, to Dec. 31, 1916, nonrecording gage at site 0.5 mi upstream at datum 8.00 ft higher. Jan. 1, 1923, to Nov. 26, 1934, nonrecording gage at Center Street Bridge at datum 8.00 ft higher. Nov. 27, 1934, to Sept. 30, 1962, water-stage recorder at present site at datum 8.00 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated by 12 reservoirs upstream from station (see elsewhere in this report). Many small diversions for irrigation upstream from station; part of flow of Salem Canal, which diverts water from North Santiam River, returns to Willamette River downstream from station, through Mill Creek at Salem.

AVERAGE DISCHARGE.--71 years, 23,610 ft^3/s, 44.04 in/yr, 17,110,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 348,000 ft^3/s Jan. 8, 1923, gage height, 38.3 ft, present datum; minimum discharge, 2,470 ft^3/s Aug. 27, 1940, gage height, 3.55 ft, present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 500,000 ft^3/s Dec. 4, 1861, gage height, about 47 ft present datum, from rating curve extended above 250,000 ft^3/s in 1916. Floods of Jan. 16, 1881, and Feb. 5, 1890, reached stages of 44.3 ft, discharge, 428,000 ft^3/s, and 45.1 ft, discharge, 448,000 ft^3/s, respectively, from floodmarks and information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 99,700 ft^3/s Nov. 29, gage height, 22.36 ft; minimum discharge, 5,610 ft^3/s July 15, 16, gage height, 4.58 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18700	18600	83700	28800	71800	14800	13200	9430	7850	5730	5880	6580
2	17800	18400	77600	43000	90500	14900	12700	9730	8160	5770	5880	6540
3	16500	16700	68800	50500	93900	17800	12400	10100	7550	5800	5890	6560
4	15200	15700	56300	53900	82200	22700	12300	10200	7060	5840	5780	6650
5	13700	16000	45200	50100	68400	21000	12100	9780	6810	6010	5700	6670
6	13400	16800	40100	44900	57900	20100	11900	9470	6700	6040	5680	6670
7	13100	17300	37300	42300	46100	19200	11800	9100	6620	5930	5720	6670
8	12700	19300	35100	36200	35500	17700	12300	8830	6500	5880	5740	6700
9	12600	19800	29800	30600	31700	16800	14400	8450	6360	5800	5720	6940
10	12500	20300	25000	25500	29200	18800	14300	8220	6260	5910	5740	7240
11	12400	21700	23000	22300	24000	20600	15600	8110	6210	5940	5740	7310
12	12400	21800	22500	21700	21600	23700	16600	8050	6220	5890	5750	7620
13	12400	20400	23000	24900	21100	31800	14800	8640	6190	5850	5800	8060
14	12600	19900	24900	26300	28300	34200	13600	8640	6090	5740	5890	8180
15	13600	19800	27800	25700	33700	36800	12700	8340	6080	5620	6160	8400
16	13900	20100	26200	23100	33200	33800	12000	8040	6080	5640	6380	8390
17	13700	22300	23900	20600	33800	29200	11800	7830	6160	5730	6390	8320
18	13400	26700	22100	17900	34700	28500	12700	7600	6200	6330	6470	8050
19	13500	29900	19900	16700	31000	30200	12700	7420	6090	8230	6370	7980
20	13400	32900	18600	16000	26800	29300	12000	7280	6010	8890	6490	7940
21	13200	44300	17700	15000	23900	27000	11400	6980	6100	7370	6530	7880
22	13500	60300	17000	13800	22000	24800	11000	6920	6340	6740	6560	7890
23	13500	70300	19500	13700	21200	24100	10800	6820	6350	6660	6580	7880
24	13000	69900	21800	16400	20400	24100	10500	6810	6140	6660	6620	7960
25	13500	70200	22100	29500	18500	21500	10300	7150	5970	6310	6560	8210
26	13500	66600	24500	45200	17000	19600	9980	6960	5940	6230	6540	8360
27	13700	72900	25500	58300	16000	18200	9720	6930	5890	6340	6520	8420
28	14200	90600	24200	64400	15400	16800	9580	7090	5840	6260	6550	8370
29	13800	99000	27600	64100	---	15600	9460	6780	5840	6100	6590	8280
30	13900	95500	27500	57600	---	14600	9340	6790	5760	5940	6630	8160
31	15500	---	27000	52900	---	14000	---	7160	---	5890	6670	---
TOTAL	428800	1154000	982200	1051900	1049800	702200	363980	249650	191370	193070	191520	228880
MEAN	13830	38470	31680	33930	37490	22650	12130	8053	6379	6228	6178	7629
MAX	18700	99000	83700	64400	93900	36800	16600	10200	8160	8890	6670	8420
MIN	12400	15700	17000	13700	15400	14000	9340	6780	5760	5620	5680	6540
AC-FT	850500	2289000	1948000	2086000	2082000	1393000	722000	495200	379600	383000	379900	454000
CFSM	1.90	5.28	4.35	4.66	5.15	3.11	1.67	1.11	.88	.86	.85	1.05
IN.	2.19	5.90	5.02	5.38	5.36	3.59	1.86	1.28	.98	.99	.98	1.17

CAL YR 1986 TOTAL 8568570 MEAN 23480 MAX 146000 MIN 6100 AC-FT 17000000 CFSM 3.22 IN. 43.78
WTR YR 1987 TOTAL 6787370 MEAN 18600 MAX 99000 MIN 5620 AC-FT 13460000 CFSM 2.55 IN. 34.68

14191000 WILLAMETTE RIVER AT SALEM, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1910-12, 1951 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1951 to September 1972, October 1976 to September 1983.
WATER TEMPERATURE: February 1951 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since February 1951. Specific conductance recorder February 1951 to September 1972 and from October 1976 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 141 microsiemens Sept. 17, 1966; minimum daily, 30 microsiemens Jan. 29, 1965.
WATER TEMPERATURE: Maximum, 25.5°C July 23, 1959; minimum, 0.0°C on several days in 1956, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 24.0°C June 30; minimum, 3.5°C Jan. 18.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	13.0	13.0	12.5	12.0	12.5	8.0	8.0	8.0	7.0	7.0	7.0
2	13.5	13.0	13.0	12.0	11.5	12.0	8.0	7.5	8.0	7.0	7.0	7.0
3	14.0	13.0	13.5	12.0	11.5	12.0	7.5	7.5	7.5	7.0	7.0	7.0
4	14.5	13.5	14.0	11.5	11.5	11.5	7.5	7.5	7.5	7.5	7.0	7.5
5	15.0	13.5	14.0	11.5	11.0	11.5	7.5	7.5	7.5	7.0	7.0	7.0
6	15.5	14.0	14.5	11.5	11.0	11.5	7.5	7.5	7.5	7.0	6.5	7.0
7	15.5	14.5	15.0	11.5	11.0	11.0	7.5	7.5	7.5	6.5	6.0	6.0
8	15.5	14.5	15.0	11.0	11.0	11.0	7.5	7.0	7.0	6.0	5.0	5.5
9	15.0	14.5	15.0	11.0	10.5	10.5	7.0	6.5	6.5	5.0	5.0	5.0
10	14.5	14.0	14.0	10.5	9.5	10.0	6.5	6.0	6.5	5.0	5.0	5.0
11	14.0	13.0	13.5	10.0	9.5	9.5	6.0	6.0	6.0	5.5	5.0	5.0
12	13.5	13.0	13.5	10.0	9.5	10.0	6.5	6.0	6.0	6.5	5.5	6.0
13	13.5	13.0	13.5	9.5	9.5	9.5	7.0	6.5	6.5	6.5	6.0	6.5
14	13.5	13.0	13.0	10.0	9.5	9.5	7.5	7.0	7.5	6.0	6.0	6.0
15	13.5	13.0	13.0	10.5	10.0	10.0	7.5	7.0	7.5	6.0	5.0	5.5
16	13.5	12.5	13.0	10.0	10.0	10.0	7.0	6.5	6.5	5.0	4.0	4.5
17	13.0	12.5	13.0	10.5	10.0	10.0	6.5	6.0	6.0	4.0	4.0	4.0
18	13.5	12.5	13.0	10.0	10.0	10.0	6.0	5.5	6.0	4.0	3.5	4.0
19	13.5	13.0	13.0	10.0	10.0	10.0	6.0	5.5	6.0	4.5	4.0	4.0
20	13.0	12.5	13.0	10.5	10.0	10.0	6.0	6.0	6.0	4.5	4.5	4.5
21	13.0	12.5	12.5	10.5	10.0	10.0	7.0	6.0	6.5	4.5	4.5	4.5
22	13.0	12.5	13.0	10.0	9.5	9.5	7.5	7.0	7.0	4.5	4.0	4.5
23	12.5	12.5	12.5	9.5	9.5	9.5	8.0	7.5	7.5	5.0	4.5	4.5
24	13.5	12.5	13.0	10.0	9.5	9.5	8.0	7.5	7.5	6.0	5.5	5.5
25	14.0	13.0	13.5	9.5	8.5	9.0	7.5	7.5	7.5	6.5	6.0	6.5
26	14.0	13.5	14.0	9.0	8.5	8.5	7.5	7.5	7.5	7.0	6.5	7.0
27	14.0	13.5	14.0	9.0	9.0	9.0	7.5	7.0	7.5	7.5	7.0	7.5
28	13.5	13.0	13.5	9.0	9.0	9.0	7.0	6.5	7.0	7.0	7.0	7.0
29	13.0	12.5	13.0	9.0	8.5	9.0	7.0	6.5	7.0	7.0	7.0	7.0
30	12.5	12.5	12.5	8.5	8.0	8.5	7.0	6.5	7.0	7.5	7.0	7.5
31	13.0	12.5	12.5	---	---	---	7.0	6.5	6.5	7.5	7.0	7.5
MONTH	15.5	12.5	13.5	12.5	8.0	10.0	8.0	5.5	7.0	7.5	3.5	6.0

14191000 WILLAMETTE RIVER AT SALEM, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.5	8.0	8.0	7.0	7.5	12.5	11.0	12.0	15.5	14.0	14.5
2	8.0	7.5	7.5	8.5	7.5	8.0	13.5	12.0	12.5	14.0	13.5	13.5
3	8.0	7.5	7.5	9.0	8.5	8.5	13.0	12.5	13.0	14.5	13.0	13.5
4	8.0	7.5	8.0	9.5	9.0	9.0	12.5	12.0	12.0	15.0	14.0	14.5
5	7.5	7.5	7.5	9.5	9.5	9.5	12.0	11.0	11.5	16.5	14.5	15.5
6	7.5	7.5	7.5	9.5	9.0	9.5	11.0	10.5	11.0	18.0	16.0	17.0
7	7.5	7.0	7.5	9.5	9.0	9.0	11.5	10.5	11.0	19.5	17.5	18.5
8	7.5	7.0	7.5	9.0	8.5	9.0	12.5	11.0	12.0	21.0	19.0	20.0
9	7.5	7.5	7.5	8.5	8.5	8.5	12.5	11.5	12.0	21.0	19.5	20.5
10	8.0	7.5	8.0	9.0	8.5	9.0	12.0	11.5	11.5	21.0	19.5	20.5
11	9.0	8.0	8.5	9.0	9.0	9.0	11.0	10.5	11.0	20.5	19.0	20.0
12	9.0	8.5	9.0	9.0	9.0	9.0	11.0	10.0	10.5	19.5	18.5	19.0
13	8.5	8.5	8.5	9.5	9.0	9.5	11.5	10.5	11.0	18.5	18.0	18.0
14	8.5	8.0	8.5	9.5	9.0	9.5	13.0	11.5	12.0	18.0	17.5	17.5
15	8.0	8.0	8.0	9.0	8.5	9.0	13.5	12.5	13.0	17.5	16.5	17.0
16	8.0	8.0	8.0	9.0	8.5	9.0	13.5	13.0	13.5	16.5	15.5	16.0
17	8.0	7.5	8.0	9.5	9.0	9.0	13.0	12.5	13.0	16.0	15.0	15.5
18	8.0	7.5	7.5	9.0	8.5	9.0	12.0	11.5	12.0	15.5	14.5	15.0
19	8.0	7.5	8.0	8.5	8.0	8.5	12.0	11.0	11.5	16.0	14.5	15.0
20	8.0	7.5	8.0	8.5	8.0	8.5	12.0	11.0	11.5	16.0	14.5	15.5
21	8.0	8.0	8.0	9.0	8.5	8.5	13.0	11.5	12.5	17.0	15.5	16.5
22	8.0	8.0	8.0	9.0	8.5	9.0	14.0	12.5	13.5	17.5	16.0	17.0
23	8.0	7.5	7.5	9.5	9.0	9.5	15.0	13.5	14.5	17.5	16.5	17.0
24	7.5	7.0	7.5	10.0	9.0	9.5	15.0	14.0	14.5	17.0	16.0	16.5
25	7.0	6.5	6.5	9.5	9.0	9.5	14.5	13.5	14.0	16.0	15.0	15.5
26	6.5	6.0	6.5	9.5	8.5	9.0	15.0	13.5	14.5	15.0	14.5	15.0
27	6.5	6.5	6.5	9.5	8.5	9.0	16.5	14.5	15.5	14.5	14.0	14.5
28	7.0	6.5	6.5	10.0	9.0	9.5	16.5	15.5	16.0	14.0	13.5	14.0
29	---	---	---	10.0	9.0	9.5	16.5	15.5	16.0	15.5	13.5	14.5
30	---	---	---	10.5	9.5	10.0	16.5	15.5	16.0	15.5	14.5	15.0
31	---	---	---	11.5	10.5	11.0	---	---	---	15.5	14.5	15.0
MONTH	9.0	6.0	7.5	11.5	7.0	9.0	16.5	10.0	13.0	21.0	13.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	14.5	15.0	23.5	22.0	23.0	19.5	18.5	19.0	22.0	21.0	21.5
2	16.5	14.5	15.5	22.5	21.0	22.0	19.5	18.5	19.0	21.5	20.5	21.0
3	18.0	16.0	17.0	21.5	20.5	21.0	21.0	19.0	19.5	20.5	19.0	19.5
4	19.5	17.5	18.5	20.5	19.0	19.5	22.0	20.5	[illegible]	19.5	18.0	19.0
5	19.0	18.5	19.0	19.0	18.0	18.5	22.0	[illegible]	[illegible]	20.0	18.5	19.0
6	19.0	17.5	18.5	18.5	17.5	18.0	21.5	20.5	21.5	20.0	18.5	19.5
7	19.5	18.0	19.0	18.5	18.0	18.5	22.0	20.5	21.5	20.0	19.0	19.5
8	19.5	18.5	19.0	18.5	18.0	18.0	22.5	21.5	22.0	19.0	18.0	18.5
9	19.5	18.5	19.0	18.5	18.0	18.0	22.5	21.5	22.0	19.5	18.0	18.5
10	19.5	18.5	19.0	19.5	18.0	19.0	22.0	21.0	21.5	19.0	18.0	18.5
11	20.0	18.5	19.5	20.5	19.0	20.0	21.0	20.5	20.5	18.5	17.0	17.5
12	20.5	19.0	20.0	22.0	20.0	21.0	21.0	20.0	20.5	17.0	15.5	16.0
13	21.0	19.5	20.0	22.5	21.0	22.0	20.5	19.5	20.0	16.5	15.5	15.5
14	21.5	20.5	21.0	23.5	22.0	23.0	19.5	19.0	19.5	15.5	15.5	15.5
15	20.5	19.0	20.0	23.0	22.0	22.5	19.0	18.5	19.0	15.5	15.0	15.0
16	19.0	17.5	18.0	21.5	20.0	20.5	19.0	18.0	18.5	15.5	14.0	14.5
17	17.5	16.5	17.0	20.0	18.5	19.0	19.0	18.0	18.5	16.0	14.0	15.5
18	18.5	17.0	17.5	18.5	16.5	17.5	19.5	18.5	19.0	16.5	15.5	16.0
19	19.5	18.0	18.5	17.5	16.0	16.5	20.5	19.0	19.5	17.0	15.5	16.0
20	19.0	18.5	19.0	18.5	16.5	17.5	20.0	19.5	20.0	17.0	16.0	16.5
21	18.5	17.5	18.0	20.5	18.5	19.5	20.0	19.0	19.5	17.0	16.0	16.5
22	18.5	17.0	18.0	20.0	19.0	19.0	19.5	18.5	19.0	17.5	16.0	16.5
23	19.0	17.5	18.0	19.5	18.0	18.5	20.0	18.5	19.5	17.5	16.0	17.0
24	19.5	18.0	19.0	19.5	18.5	19.0	20.0	19.0	19.5	17.0	16.5	16.5
25	21.0	19.0	20.0	19.5	18.5	19.0	20.5	19.0	20.0	16.5	15.5	16.0
26	22.5	20.5	21.5	19.5	19.0	19.5	21.0	19.5	20.5	16.0	15.0	15.5
27	23.0	21.5	22.5	19.5	18.5	19.0	21.0	20.0	20.5	15.5	14.5	15.0
28	23.0	22.0	22.5	20.0	18.5	19.5	21.0	20.0	20.5	15.5	14.5	15.0
29	23.5	22.0	23.0	20.0	19.0	19.5	21.0	20.0	20.5	16.0	14.5	15.5
30	24.0	22.5	23.0	20.0	19.0	19.5	21.0	20.0	20.5	16.0	15.0	15.5
31	---	---	---	20.0	18.5	19.5	22.0	20.5	21.0	---	---	---
MONTH	24.0	14.5	19.0	23.5	16.0	19.5	22.5	18.0	20.0	22.0	14.0	17.0
YEAR	24.0	3.5	13.0									

14192500 SOUTH YAMHILL RIVER NEAR WILLAMINA, OR

LOCATION.--Lat 45°02'50", long 123°30'10", in NE 1/4 SE 1/4 sec.14, T.6 S., R.7 W., Polk County, Hydrologic Unit 17090008, on left bank 2.3 mi southwest of Willamina, 2.8 mi upstream from Willamina Creek, and at mile 45.5.

DRAINAGE AREA.--133 mi^2.

PERIOD OF RECORD.--May 1934 to current year.

REVISED RECORDS.--WSP 814: Drainage area. WSP 1318: 1934.

GAGE.--Water-stage recorder. Datum of gage is 235.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 24 to Feb. 3, Feb. 9-11. Records good except for estimated daily discharges, which are fair. Slight regulation occasionally at low flows by millpond upstream. No diversion upstream from station.

AVERAGE DISCHARGE.--53 years, 620 ft^3/s, 63.31 in/yr, 449,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft^3/s Dec. 22, 1964, gage height, 17.07 ft; minimum discharge, 2.6 ft^3/s Oct. 11, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	unknown	*11,500	*a12.46	Mar. 3	1730	8,120	10.09

Minimum discharge, 8.9 ft^3/s Sept. 23-25.

a From floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	435	1000	2400	7000	688	314	283	238	37	18	11
2	64	307	792	2190	3870	1210	296	384	173	37	18	10
3	57	241	650	2700	2550	5380	295	371	143	40	17	10
4	51	198	555	2690	1900	3910	277	316	123	38	15	12
5	46	169	500	1940	1400	2270	268	271	113	44	14	12
6	42	155	442	1450	1080	1630	271	247	112	47	14	12
7	38	389	396	1120	886	1220	277	227	100	39	14	12
8	36	334	366	898	748	994	312	187	92	37	13	13
9	34	321	328	743	630	1310	276	173	87	36	12	13
10	34	289	294	634	541	2560	301	163	84	36	12	13
11	32	256	277	554	483	1870	342	153	81	35	14	14
12	30	229	279	659	439	3020	318	164	80	29	14	15
13	29	206	356	763	785	2470	291	156	72	26	14	15
14	28	191	666	1150	1020	2180	275	145	67	23	17	14
15	29	170	717	877	1010	1660	263	137	65	21	19	16
16	28	163	549	743	1410	1300	253	128	66	21	18	25
17	28	462	470	648	1380	1230	295	122	65	24	16	17
18	28	532	424	579	1270	1200	351	117	61	45	13	13
19	29	636	445	521	1050	1030	328	111	58	86	12	11
20	27	1490	389	472	900	909	296	109	56	49	11	11
21	26	1410	369	433	784	799	272	106	74	35	11	9.8
22	27	1510	881	410	710	702	259	101	74	29	12	9.6
23	26	1830	1430	446	705	693	246	97	61	29	12	9.5
24	26	3130	1090	720	601	594	234	94	54	28	12	9.5
25	53	2140	904	1260	534	531	225	92	50	27	12	9.7
26	259	1760	1170	1380	486	491	210	92	45	28	11	12
27	323	3380	916	1390	454	448	192	92	41	28	12	15
28	181	2940	832	1430	427	410	181	92	39	26	11	13
29	146	1890	2550	1390	---	379	173	92	38	22	12	12
30	358	1330	2090	1200	---	353	190	159	37	20	12	11
31	835	---	1540	2500	---	333	---	284	---	19	11	---
TOTAL	3025	28493	23667	36290	35053	43774	8081	5265	2449	1041	423	380.1
MEAN	97.6	950	763	1171	1252	1412	269	170	81.6	33.6	13.6	12.7
MAX	835	3380	2550	2700	7000	5380	351	384	238	86	19	25
MIN	26	155	277	410	427	333	173	92	37	19	11	9.5
AC-FT	6000	56520	46940	71980	69530	86830	16030	10440	4860	2060	839	754
CFSM	.73	7.14	5.74	8.80	9.41	10.6	2.03	1.28	.61	.25	.10	.10
IN.	.85	7.97	6.62	10.15	9.80	12.24	2.26	1.47	.68	.29	.12	.11

CAL YR 1986 TOTAL 187351.1 MEAN 513 MAX 4660 MIN 9.5 AC-FT 371600 CFSM 3.86 IN. 52.40
WTR YR 1987 TOTAL 187941.1 MEAN 515 MAX 7000 MIN 9.5 AC-FT 372800 CFSM 3.87 IN. 52.57

14193000 WILLAMINA CREEK NEAR WILLAMINA, OR

LOCATION.--Lat 45°08'35", long 123°29'35", in NE 1/4 NW 1/4 sec.13, T.5 S., R.7 W., Yamhill County, Hydrologic Unit 17090008, on right bank 4.5 mi north of Willamina and at mile 6.2.

DRAINAGE AREA.--64.7 mi^2.

PERIOD OF RECORD.--June 1934 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 315 ft above National Geodetic Vertical Datum of 1929 (plane-table survey). Prior to Oct. 1, 1939, water-stage recorder at site on left bank at datum 1.00 ft higher. Oct. 1, 1939, to Aug. 5, 1968, water-stage recorder at site on left bank at present datum.

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--53 years, 260 ft^3/s, 54.57 in/yr, 188,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft^3/s Dec. 22, 1964, gage height, 13.54 ft, from rating curve extended above 3,400 ft^3/s on basis of slope-area measurement at gage height 11.65 ft; minimum discharge, 5.4 ft^3/s July 15, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1931, reached a stage of about 12 ft, from information by local resident, discharge, 8,200 ft^3/s, from rating curve extended above 3,400 ft^3/s on basis of slope-area measurement at gage height 11.65 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 2,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	0330	*3,690	*8.51	Mar. 3	1730	3,620	8.44

Minimum discharge, 10 ft^3/s Sept. 24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	131	413	874	2890	308	165	[illegible]	[illegible]	[illegible]	[illegible]	11
2	30	90	329	834	1700	523	157	[illegible]	[illegible]	36	19	11
3	27	71	273	941	1120	2230	155	[illegible]	[illegible]	[illegible]	18	12
4	26	60	236	1020	828	1730	146	[illegible]	[illegible]	[illegible]	[illegible]	12
5	25	54	212	805	640	1020	143	99	43	33	[illegible]	12
6	23	51	186	634	512	760	142	[illegible]	48	29	17	11
7	22	108	166	502	427	597	137	84	[illegible]	[illegible]	[illegible]	11
8	21	90	152	411	366	484	139	78	45	[illegible]	16	12
9	21	88	140	344	419	539	128	73	42	26	15	12
10	20	78	130	298	284	821	137	71	41	[illegible]	14	12
11	19	70	126	265	257	728	152	69	40	[illegible]	[illegible]	12
12	18	64	126	271	239	1140	147	74	39	23	16	13
13	18	59	154	294	337	980	135	70	38	22	18	13
14	19	57	271	437	373	846	126	67	37	21	19	14
15	19	52	300	340	397	705	119	65	36	19	18	19
16	19	56	239	297	578	581	114	62	37	20	18	16
17	19	118	210	267	647	535	132	60	37	22	16	14
18	19	150	191	245	593	479	133	59	36	76	15	13
19	20	200	178	226	498	422	123	58	34	56	15	12
20	19	354	163	208	431	374	117	58	35	34	14	12
21	19	358	154	193	378	331	112	55	41	28	14	11
22	19	462	246	185	350	296	107	53	38	26	14	11
23	18	725	361	193	327	312	102	52	34	26	13	11
24	19	1090	353	308	288	272	97	51	33	25	13	11
25	37	760	336	540	259	251	93	51	30	25	13	12
26	85	695	378	595	237	237	89	50	28	25	13	13
27	95	1310	328	603	220	220	86	50	27	25	12	13
28	52	1140	307	623	211	206	83	52	26	23	12	12
29	46	756	697	605	---	193	80	49	26	22	12	11
30	118	543	648	521	---	183	94	78	25	21	12	10
31	256	---	531	1090	---	173	---	120	---	21	12	---
TOTAL	1201	9840	8534	14969	15706	18471	3688	2288	1201	859	478	369
MEAN	38.7	328	275	483	561	596	123	73.8	40.0	27.7	15.4	12.3
MAX	256	1310	697	1090	2890	2230	165	142	83	76	20	19
MIN	18	51	126	185	211	173	80	49	25	19	12	10
AC-FT	2380	19520	16930	29690	31150	36640	7320	4540	2380	1700	948	732
CFSM	.60	5.07	4.25	7.46	8.67	9.21	1.90	1.14	.62	.43	.24	.19
IN.	.69	5.66	4.91	8.61	9.03	10.62	2.12	1.32	.69	.49	.27	.21

CAL YR 1986 TOTAL 75361.6 MEAN 206 MAX 1740 MIN 9.6 AC-FT 149500 CFSM 3.19 IN. 43.33
WTR YR 1987 TOTAL 77604 MEAN 213 MAX 2890 MIN 10 AC-FT 153900 CFSM 3.29 IN. 44.62

14194000 SOUTH YAMHILL RIVER NEAR WHITESON, OR

LOCATION.--Lat 45°10'08", long 123°12'25", in NE 1/4 NW 1/4 sec.5, T.5 S., R.4 W., Yamhill County, Hydrologic Unit 17090008, near left bank on downstream side of Whiteson Bridge on State Highway 99W, 1.3 mi northwest of Whiteson, 1.4 mi downstream from Salt Creek, and at mile 16.71.

DRAINAGE AREA.--502 mi^2.

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 82.30 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1940, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Aug. 26 to Sept. 3. Records good except for estimated daily discharges, which are fair. Slight regulation during low-water periods by logpond upstream. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--47 years, 1,754 ft^3/s, 47.45 in/yr, 1,271,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,200 ft^3/s Dec. 23, 1964, gage height, 47.20 ft; minimum discharge, 3.2 ft^3/s Aug. 24, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 46.9 ft, from Oregon State Highway Department bridge plans.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	1630	*25,600	*42.96	Mar. 4	2100	15,700	38.82

Minimum discharge observed, 6.6 ft^3/s Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	1060	3200	5060	13600	1380	1020	596	544	51	41	16
2	132	616	2240	7180	20800	2050	957	728	369	56	43	14
3	115	452	1720	6940	13100	4990	915	984	283	57	42	8.5
4	100	356	1400	7860	9980	13100	872	815	233	64	35	13
5	90	299	1210	7710	7020	13000	823	694	205	69	28	14
6	83	264	1060	5750	4330	8210	829	636	196	77	24	17
7	74	295	915	3960	3090	4840	818	581	188	72	25	18
8	65	592	813	2930	2500	3340	841	517	170	63	29	19
9	57	482	732	2330	2120	3040	845	459	157	58	27	19
10	53	491	671	1960	1840	6290	772	424	143	57	24	17
11	52	426	620	1710	1640	7000	918	407	137	64	23	16
12	46	375	644	1620	1480	7330	962	407	133	61	31	22
13	40	336	653	2020	1860	9180	865	431	128	52	35	24
14	40	308	1260	2640	3350	8330	799	396	123	41	33	26
15	38	287	2210	2740	3380	6490	746	384	118	35	33	25
16	52	261	1800	2220	4440	4710	706	358	111	32	32	33
17	55	392	1390	1880	4760	3710	706	334	110	32	36	45
18	52	629	1160	1640	4440	3400	899	310	110	52	35	40
19	55	1090	1090	1480	3750	3080	870	269	106	187	32	30
20	54	1360	1030	1340	3080	2660	796	234	98	153	28	29
21	53	3260	934	1230	2600	2350	750	213	103	99	24	28
22	55	2800	919	1120	2220	2070	709	199	127	77	19	25
23	64	3150	3080	1130	2140	1980	677	185	113	65	19	23
24	63	4550	3200	1410	1890	1870	635	181	94	65	25	20
25	71	5970	2760	2910	1640	1670	602	180	83	62	21	18
26	157	4470	2880	4550	1460	1560	578	178	80	62	21	19
27	503	5190	2690	5900	1320	1460	551	175	73	62	20	22
28	429	7480	2220	6040	1210	1340	523	177	64	60	20	27
29	273	7430	3630	6450	---	1240	499	178	61	52	19	26
30	334	5090	6510	5750	---	1160	473	180	54	45	18	22
31	1080	---	5620	4980	---	1090	---	419	---	42	19	---
TOTAL	4482	59761	60261	112440	125040	133920	22956	12229	4514	2024	861	675.5
MEAN	145	1992	1944	3627	4466	4320	765	394	150	65.3	27.8	22.5
MAX	1080	7480	6510	7860	20800	13100	1020	984	544	187	43	45
MIN	38	261	620	1120	1210	1090	473	175	54	32	18	8.5
AC-FT	8890	118500	119500	223000	248000	265600	45530	24260	8950	4010	1710	1340
CFSM	.29	3.97	3.87	7.23	8.90	8.61	1.52	.79	.30	.13	.06	.04
IN.	.33	4.43	4.47	8.33	9.27	9.92	1.70	.91	.33	.15	.06	.05

CAL YR 1986 TOTAL 485383 MEAN 1330 MAX 13100 MIN 15 AC-FT 962800 CFSM 2.65 IN. 35.97
WTR YR 1987 TOTAL 539163.5 MEAN 1477 MAX 20800 MIN 8.5 AC-FT 1069000 CFSM 2.94 IN. 39.95

14194300 NORTH YAMHILL RIVER NEAR FAIRDALE, OR

LOCATION.--Lat 45°21′55″, long 123°22′40″, in SW 1/4 sec.25, T.2 S., R.6 W., Yamhill County, Hydrologic Unit 17090008, on right bank 0.4 mi downstream from small tributary, 1.3 mi upstream from Kutch Creek, 2.1 mi west of Fairdale, 9.5 mi west of Yamhill and at mile 29.4.

DRAINAGE AREA.--9.03 mi^2.

PERIOD OF RECORD.--October 1958 to March 1966, October 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 27 to Jan. 5. Records excellent except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--27 years (water years 1959-65, 1968-87), 47.0 ft^3/s, 70.68 in/yr, 34,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft^3/s Dec. 22, 1964, gage height, 6.88 ft, from rating curve extended above 1,000 ft^3/s; maximum gage height, 9.7 ft Dec. 23, 1964 (backwater from debris); minimum discharge, 2.3 ft^3/s Sept. 23-26, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	0700	519	4.64	Mar. 3	1600	*564	*4.77

Minimum discharge, 2.0 ft^3/s Sept. 22, 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	20	63	110	428	83	31	19	19	5.6	4.1	2.7
2	4.1	13	51	105	269	118	29	24	15	5.7	3.8	2.8
3	3.7	11	43	120	180	410	28	21	13	5.8	3.7	3.0
4	3.6	9.3	38	140	138	303	26	19	12	5.9	3.5	2.9
5	3.4	8.9	34	120	111	176	26	17	12	6.4	3.5	2.7
6	3.3	8.7	30	93	91	126	25	16	11	5.9	3.6	2.7
7	3.2	15	26	77	76	101	25	16	10	5.8	3.5	2.8
8	3.1	12	24	65	65	84	27	15	10	5.7	3.3	3.0
9	3.1	11	22	56	57	90	24	14	9.7	5.8	3.2	2.9
10	3.3	9.8	20	49	52	116	26	13	9.4	5.9	3.6	2.8
11	3.3	9.2	20	45	48	113	34	13	9.2	5.4	3.8	3.0
12	3.3	8.7	19	51	46	170	32	15	8.9	5.0	3.6	3.3
13	3.3	8.3	26	59	62	166	29	14	8.6	4.8	4.4	3.2
14	3.3	8.2	35	80	70	153	27	13	8.4	4.5	4.2	3.4
15	3.3	7.6	35	65	84	123	25	13	8.3	4.4	4.0	4.5
16	3.3	13	30	57	122	105	24	12	8.4	5.0	3.9	3.3
17	3.6	27	27	51	123	97	27	12	8.2	5.2	3.7	3.0
18	3.7	34	26	46	107	83	27	12	7.9	9.9	3.5	2.8
19	3.7	58	24	41	90	73	25	12	7.5	6.8	3.4	2.5
20	3.5	99	22	38	76	65	24	12	7.9	5.6	3.4	2.4
21	3.5	98	22	36	66	59	23	11	8.7	5.0	3.4	2.4
22	3.5	115	37	34	62	54	22	10	8.2	5.0	3.2	2.2
23	3.4	156	58	35	58	55	21	10	7.6	5.1	3.1	2.2
24	3.5	224	57	63	52	49	20	9.9	7.0	5.0	3.1	2.4
25	7.6	147	55	89	48	45	20	9.8	6.5	5.0	3.1	2.7
26	12	122	58	97	45	43	19	9.8	6.1	5.0	3.0	3.0
27	10	169	55	100	42	40	18	9.8	5.9	4.9	2.9	2.6
28	6.5	146	50	105	42	37	17	9.9	5.8	4.6	2.9	2.3
29	7.5	110	100	100	---	36	17	9.5	5.7	4.4	2.9	2.2
30	33	81	85	88	---	34	18	16	5.6	4.3	2.9	2.1
31	40	---	75	225	---	32	---	25	---	4.3	2.7	---
TOTAL	200.3	1759.7	1267	2440	2710	3239	736	432.7	271.5	167.7	106.9	83.8
MEAN	6.46	58.7	40.9	78.7	96.8	104	24.5	14.0	9.05	5.41	3.45	2.79
MAX	40	224	100	225	428	410	34	25	19	9.9	4.4	4.5
MIN	3.1	7.6	19	34	42	32	17	9.5	5.6	4.3	2.7	2.1
AC-FT	397	3490	2510	4840	5380	6420	1460	858	539	333	212	166
CFSM	.72	6.50	4.53	8.72	10.7	11.6	2.72	1.55	1.00	.60	.38	.31
IN.	.83	7.25	5.22	10.05	11.16	13.34	3.03	1.78	1.12	.69	.44	.35

CAL YR 1986 TOTAL 12573.0 MEAN 34.4 MAX 240 MIN 2.7 AC-FT 24940 CFSM 3.81 IN. 51.80
WTR YR 1987 TOTAL 13414.6 MEAN 36.8 MAX 428 MIN 2.1 AC-FT 26610 CFSM 4.07 IN. 55.26

14195500 HASKINS CREEK RESERVOIR NEAR MCMINNVILLE, OR

LOCATION.--Lat 45°18'43", long 123°21'23", in SW 1/4 NW 1/4 sec.18, T.3 S., R.5 W., Yamhill County, Hydrologic Unit 17090008, on control tower 250 ft upstream from dam on Haskins Creek, 11 mi northwest of McMinnville, and at mile 5.1.

DRAINAGE AREA.--6.88 mi^2.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WDR OR-79-1: 1978 (maximum contents).

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of McMinnville). Prior to February 1981, at datum 20.0 ft lower.

REMARKS.--Reservoir is formed by earthfill dam equipped with five siphon spillways which act as overflow weirs until priming occurs, approximately 815.5 ft elevation. Capacity of reservoir is 733 acre-ft between elevations 741.5 ft, invert of outlet tunnel, and 815.0 ft, crest of siphon spillways. Dead storage negligible. Rated capacity of three siphons is 700 ft^3/s each and remaining two siphons 350 ft^3/s each. Water is used for municipal supply of city of McMinnville.

COOPERATION.--Elevations and capacity table furnished by city of McMinnville, Water and Light Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 748 acre-ft Nov. 17, 1954, elevation, 815.65 ft, present datum; no contents at times during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 733 acre-ft many days during the year, elevation, 815.0 ft, present datum; no contents many days in February and March.

MONTHEND ELEVATIONS AND CONTENTS AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	815.0	733	-
Oct. 31	815.0	733	0
Nov. 30	815.0	733	0
Dec. 31	815.0	733	0
CAL YR 1986	-	-	0
Jan. 31	815.0	733	0
Feb. 28	750.0	0	-733
Mar. 31	782.0	205	+205
Apr. 30	815.0	733	+528
May 31	815.0	733	0
June 30	807.7	577	-156
July 31	813.0	688	+111
Aug. 31	810.0	624	-64
Sept.30	809.5	614	-10
WTR YR 1987	-	-	-119

14196001 HASKINS CREEK BELOW RESERVOIR, NEAR MCMINNVILLE, OR

LOCATION.--Lat 45°18'39", long 123°21'06", in SE 1/4 NW 1/4 sec.18, T.3 S., R.5 W., Yamhill County, Hydrologic Unit 17090008, on right bank 800 ft downstream from Haskins Creek Reservoir, 14 mi northwest of McMinnville, and at mile 5.0.

DRAINAGE AREA.--6.90 mi^2.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. Maximum discharge for water year 1957, published in WSP 1518, has been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 707 ft above National Geodetic Vertical Datum of 1929 (topographic survey of 1955). Prior to Aug. 5, 1952, water-stage recorder at site 600 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. All records given herein include flow in pipeline which diverts 600 ft upstream from station for municipal supply of McMinnville. Flow regulated by Haskins Creek Reservoir (station 14195500). Water from McGuire Lake (station 14302800) on the Nestucca River is diverted through a tunnel to Haskins Creek Reservoir to augment summer flows.

COOPERATION.--Meter readings for diversion and elevations of Haskins Creek Reservoir furnished by city of McMinnville.

AVERAGE DISCHARGE.--36 years, 32.0 ft^3/s, 62.98 in/yr, 23,180 acre-ft/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft^3/s Dec. 23, 1964, gage height, 5.98 ft, from floodmark, from rating curve extended above 400 ft^3/s on basis of slope-area measurement of peak flow; maximum daily discharge, 515 ft^3/s Jan. 21, 1972; minimum daily, 0.10 ft^3/s Oct. 27, 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 267 ft^3/s Feb. 1; minimum daily, 5.2 ft^3/s Nov. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	12	45	91	267	46	7.0	12	11	13	9.4	14
2	8.9	8.5	40	83	185	54	7.7	17	11	10	12	11
3	8.1	7.2	34	101	125	106	7.4	18	10	12	13	9.5
4	8.6	6.5	29	91	105	153	7.0	14	12	7.1	14	10
5	9.2	5.6	27	80	84	154	7.2	13	7.1	7.0	11	12
6	9.0	5.2	23	70	74	147	6.9	13	8.6	10	9.2	13
7	8.9	9.6	21	59	64	138	7.1	13	10	10	12	10
8	8.3	8.8	19	51	58	123	8.4	11	9.7	10	13	9.4
9	7.7	7.8	17	43	51	106	8.5	8.6	8.3	11	10	8.8
10	8.3	7.4	16	42	53	100	8.8	9.4	11	9.5	10	10
11	9.2	7.1	15	38	66	112	8.1	9.7	12	12	10	8.6
12	8.6	6.4	15	42	66	142	8.0	10	10	14	10	8.0
13	8.6	6.3	22	48	66	133	7.9	8.8	12	15	7.1	8.1
14	8.7	5.7	32	60	66	120	8.1	9.9	11	15	6.8	6.8
15	8.5	5.7	30	45	65	99	8.3	9.1	8.9	14	7.2	7.1
16	8.4	7.2	25	44	64	81	9.2	8.9	8.9	8.8	8.8	7.1
17	8.7	17	22	42	65	79	9.0	8.8	11	6.9	9.3	7.0
18	8.6	16	21	38	92	68	8.2	8.7	13	6.2	12	7.3
19	9.2	27	19	34	117	61	8.2	9.6	13	5.7	13	7.6
20	9.1	51	17	32	111	58	8.6	10	6.7	8.9	11	8.7
21	9.6	47	17	29	105	60	8.9	7.3	6.2	10	9.0	9.0
22	9.1	51	36	27	100	56	9.4	11	9.0	7.6	9.0	8.8
23	8.2	85	52	29	91	57	8.9	8.8	12	9.1	10	7.6
24	9.2	119	48	55	82	52	10	6.9	14	13	12	6.6
25	14	82	45	70	70	47	12	7.6	15	9.7	12	5.9
26	16	81	45	73	52	44	13	7.5	16	7.4	13	6.7
27	16	105	41	74	32	30	13	7.6	15	11	12	6.7
28	10	91	42	81	32	5.6	12	5.7	15	12	11	8.1
29	10	73	88	73	---	6.1	12	7.2	15	11	10	9.0
30	18	60	74	70	---	6.3	12	10	15	10	9.6	8.6
31	25	---	68	132	---	6.6	---	13	---	11	14	---
TOTAL	318.6	1022.0	1045	1847	2408	2450.6	270.8	315.1	337.4	317.9	330.4	261.0
MEAN	10.3	34.1	33.7	59.6	86.0	79.1	9.03	10.2	11.2	10.3	10.7	8.70
MAX	25	119	88	132	267	154	13	18	16	15	14	14
MIN	7.7	5.2	15	27	32	5.6	6.9	5.7	6.2	5.7	6.8	5.9
AC-FT	632	2030	2070	3660	4780	4860	537	625	669	631	655	518
MEAN†	5.45	34.1	33.7	59.5	72.9	82.3	17.6	10.2	6.77	4.91	3.27	2.91
CFSM†	0.79	4.94	4.88	8.62	10.6	11.9	2.55	1.48	0.98	0.71	0.47	0.42
IN.†	0.91	5.52	5.63	9.95	11.01	13.75	2.85	1.70	1.10	0.82	0.55	0.47
AC-FT†	335	2030	2070	3660	4050	5060	1050	625	403	302	201	173

CAL YR 1986 TOTAL 10641.0 MEAN 29.2 MAX 119 MIN 4.6 AC-FT 21110 MEAN† 52.3 CFSM† 7.58 IN.† 51.89 AC-FT† 19090
WTR YR 1987 TOTAL 10923.8 MEAN 29.9 MAX 267 MIN 5.2 AC-FT 21670 MEAN† 27.6 CFSM† 4.00 IN.† 54.25 AC-FT† 19960

† Adjusted for change in contents of Haskins Creek Reservoir and diversion from McGuire Lake.

14198500 MOLALLA RIVER ABOVE PINE CREEK, NEAR WILHOIT, OR

LOCATION.--Lat 45°00'35", long 122°28'45", in NE 1/4 NE 1/4 sec.31, T.6 S., R.3 E., Clackamas County, Hydrologic Unit 17090009, on right bank 0.5 mi upstream from Pine Creek, 5 mi southeast of Wilhoit, and at mile 32.5.

DRAINAGE AREA.--97.0 mi^2, at cableway 0.2 mi downstream.

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WDR OR-75-1: 1967(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 791.35 ft above National Geodetic Vertical Datum of 1929 (Bureau of Public Roads bench mark). Oct. 1, 1935, to Sept. 30, 1945, and Oct. 1, 1945, to Feb. 9, 1961, water-stage recorder at site 0.3 mi downstream at datums 8.42 ft and 10.44 ft lower, respectively. Feb. 10, 1961, to July 21, 1966, water-stage recorder at site 0.2 mi downstream at datum 5.99 ft lower.

REMARKS.--Estimated daily discharges: Feb. 25 to Mar. 25. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--52 years, 540 ft^3/s, 75.60 in/yr, 391,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,300 ft^3/s Dec. 22, 1964, gage height, 16.3 ft, from floodmark, site and datum then in use, from rating curve extended above 5,200 ft^3/s; minimum discharge, 18 ft^3/s Oct. 3, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1100	4,220	7.70	Feb. 1	0930	*5,500	*8.52

Minimum discharge, 20 ft^3/s Sept. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	462	832	1060	4380	390	284	277	507	66	42	23
2	165	308	657	1010	2830	600	302	325	368	63	43	22
3	140	237	539	1210	1900	980	313	394	293	63	40	22
4	121	194	461	1180	1260	1050	295	336	247	61	37	23
5	108	171	413	889	951	990	277	287	218	64	37	23
6	97	178	373	676	778	940	270	259	197	65	36	22
7	88	418	333	550	676	790	284	233	180	61	36	21
8	82	380	302	456	614	650	416	214	168	61	35	21
9	77	343	277	394	560	580	369	191	156	60	32	21
10	73	336	255	360	514	540	445	182	144	67	32	22
11	68	288	243	336	499	535	614	161	136	63	32	22
12	65	263	240	385	456	1070	539	298	129	54	33	23
13	62	250	290	389	614	1300	475	284	121	51	36	24
14	61	260	469	389	735	1400	420	246	115	49	40	25
15	59	245	465	348	681	1050	377	224	111	46	39	42
16	58	293	380	325	699	840	348	208	110	44	37	36
17	57	1220	329	295	681	1050	411	188	106	49	35	29
18	71	1020	300	273	641	1120	429	179	99	116	32	26
19	63	1280	305	263	555	920	402	171	95	90	31	24
20	58	1770	275	239	499	750	394	161	93	69	29	24
21	54	2380	255	233	456	670	394	150	116	67	29	24
22	52	2180	356	230	424	610	381	136	112	60	29	22
23	51	1870	836	249	394	600	352	131	96	58	28	21
24	49	1670	630	744	369	510	325	127	89	56	27	20
25	50	1320	524	1190	355	440	295	127	83	53	26	20
26	64	1400	581	1660	335	389	270	122	78	50	25	28
27	186	3680	519	1650	305	369	256	120	73	51	24	29
28	159	3040	433	1410	280	340	253	113	72	49	24	25
29	128	1770	480	1170	---	313	239	111	69	47	24	23
30	402	1140	524	944	---	298	233	209	67	44	24	21
31	721	---	480	2080	---	280	---	475	---	45	24	---
TOTAL	3691	30366	13356	22587	23441	22364	10662	6639	4448	1842	998	728
MEAN	119	1012	431	729	837	721	355	214	148	59.4	32.2	24.3
MAX	721	3680	836	2080	4380	1400	614	475	507	116	43	42
MIN	49	171	240	230	280	280	233	111	67	44	24	20
AC-FT	7320	60230	26490	44800	46500	44360	21150	13170	8820	3650	1980	1440
CFSM	1.23	10.4	4.44	7.51	8.63	7.44	3.66	2.21	1.53	.61	.33	.25
IN.	1.42	11.65	5.12	8.66	8.99	8.58	4.09	2.55	1.71	.71	.38	.28

CAL YR 1986 TOTAL 175057 MEAN 480 MAX 6130 MIN 22 AC-FT 347200 CFSM 4.94 IN. 67.14
WTR YR 1987 TOTAL 141122 MEAN 387 MAX 4380 MIN 20 AC-FT 279900 CFSM 3.99 IN. 54.12

14202965 HENRY HAGG LAKE NEAR GASTON, OR

LOCATION.--Lat 45°28'25", long 123°11'51", in SE 1/4 NE 1/4 sec.20, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, at left end of Scoggins Dam on Scoggins Creek, 3.8 mi northwest of Gaston, and at mile 4.9.

DRAINAGE AREA.--38.7 mi^2.

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill dam with gated concrete spillway and a gated outlet tunnel. Storage began in January 1975. Total capacity at elevation 305.7 ft, maximum water-surface elevation, is 63,360 acre-ft, of which 56,160 acre-ft is active storage above elevation 239.3 ft, proposed minimum pool. Reservoir is used for irrigation, flood control, and recreation. Figures given herein represent active storage.

COOPERATION.--Monthend elevations and contents furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 53,660 acre-ft Apr. 30, 1975, elevation, 303.52 ft; minimum contents observed since first filling, 808 acre-ft Oct. 31, 1975, elevation, 237.21 ft.

EXTREMES FOR CURRENT YEAR.--Maximum monthend contents, 53,560 acre-ft Apr. 30, elevation, 303.43 ft; minimum monthend contents, 22,160 acre-ft Sept. 30, elevation, 271.14 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	274.79	25,220	-
Oct. 31	273.04	23,740	-1,480
Nov. 30	277.68	27,740	+4,000
Dec. 31	280.67	30,420	+2,680
CAL YR 1986	-	-	+4,220
Jan. 31	287.74	37,090	+6,670
Feb. 28	298.01	47,580	+10,490
Mar. 31	301.74	51,660	+4,080
Apr. 30	303.43	53,560	+1,900
May 31	303.17	[illegible],260	-300
June 30	300.22	9,980	-3,280
July 31	289.64	38,950	-11,030
Aug. 31	278.45	28,420	-10,530
Sept.30	271.14	22,160	-6,260
WTR YR 1987	-	-	-3,060

14202980 SCOGGINS CREEK BELOW HENRY HAGG LAKE, NEAR GASTON, OR

LOCATION.--Lat 45°28'10", long 123°11'56", in SE 1/4 NE 1/4 sec.20, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 600 ft downstream from Scoggins Dam, 800 ft upstream from small left bank tributary, 3.7 mi northwest of Gaston, and at mile 4.8.

DRAINAGE AREA.--38.8 mi^2.

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 187.48 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Flow completely regulated by Henry Hagg Lake since January 1975. Discharge not adjusted for storage or release from Henry Hagg Lake as evaporation from reservoir at times exceeds natural flow.

AVERAGE DISCHARGE.--12 years, 107 ft^3/s, 77,520 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft^3/s Dec. 16, 1977, gage height, 13.50 ft; minimum discharge, 1.4 ft^3/s Nov. 16, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 858 ft^3/s Mar. 5, gage height, 11.45 ft; minimum discharge, 8.3 ft^3/s Jan. 1-4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	61	324	100	16	57	36	40	12	174	162	120
2	27	61	321	8.3	51	47	36	67	9.3	199	162	119
3	27	32	319	8.5	257	274	36	77	9.3	201	166	119
4	27	11	317	170	386	413	36	51	15	201	170	118
5	27	11	315	319	379	644	36	17	22	201	169	118
6	27	11	313	341	375	838	36	9.1	25	190	168	117
7	27	11	310	338	371	813	36	36	25	180	168	117
8	27	11	138	335	368	542	36	48	36	180	167	117
9	27	11	8.7	273	365	363	36	48	52	180	166	116
10	27	11	8.7	232	363	364	46	48	53	175	166	104
11	27	11	8.7	231	292	361	51	48	53	173	165	96
12	27	12	8.7	105	98	368	51	40	53	173	165	96
13	27	12	8.9	27	11	362	51	20	53	173	164	96
14	27	12	8.9	24	11	355	51	15	54	173	164	95
15	27	16	8.7	24	11	348	51	11	54	173	163	94
16	27	19	8.7	24	11	342	25	9.3	55	174	162	88
17	27	19	8.7	24	11	278	36	9.3	55	178	162	84
18	27	18	8.8	24	11	194	48	9.3	72	176	161	84
19	27	18	8.9	24	11	89	48	34	90	140	160	84
20	27	42	8.9	18	11	38	23	54	90	141	157	84
21	27	61	8.9	15	11	37	12	34	91	152	154	80
22	27	60	9.2	15	11	37	12	33	91	159	154	79
23	27	60	9.0	15	11	36	12	41	92	158	153	79
24	27	211	9.0	15	11	36	12	41	92	163	153	79
25	27	292	9.0	23	11	57	12	42	98	166	142	79
26	27	264	9.0	27	11	84	12	30	121	166	132	79
27	46	240	8.9	136	39	84	12	20	132	165	131	79
28	89	113	9.0	228	57	83	12	16	132	164	131	79
29	110	112	9.6	246	---	83	12	16	133	164	130	79
30	110	232	9.3	148	---	53	12	16	133	163	130	75
31	80	---	60	87	---	36	---	16	---	163	124	---
TOTAL	1137	2055	2613.2	3604.8	3571	7716	925	996.0	2002.6	5338	4821	2853
MEAN	36.7	68.5	84.3	116	128	249	30.8	32.1	66.8	172	156	95.1
MAX	110	292	324	341	386	838	51	77	133	201	170	120
MIN	27	11	8.7	8.3	11	36	12	9.1	9.3	140	124	75
AC-FT	2260	4080	5180	7150	7080	15300	1830	1980	3970	10590	9560	5660

CAL YR 1986 TOTAL 31551.2 MEAN 86.4 MAX 768 MIN 8.7 AC-FT 62580
WTR YR 1987 TOTAL 37632.6 MEAN 103 MAX 838 MIN 8.3 AC-FT 74640

14203500 TUALATIN RIVER NEAR DILLEY, OR

LOCATION.--Lat 45°28'30", long 123°07'23", in NE 1/4 NW 1/4 sec.24, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 5 ft upstream from highway bridge, 1.0 mi south of Dilley, 1.2 mi downstream from Scoggins Creek, and at mile 58.81.

DRAINAGE AREA.--125 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1940 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1935: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 147.57 ft above National Geodetic Vertical Datum of 1929. Prior to June 16, 1950, nonrecording gage at several sites within 200 ft of present site at datum 4.00 ft higher. June 16, 1950, to Aug. 10, 1966, water-stage recorder at present site at datum 4.00 ft higher.

REMARKS.--Estimated daily discharges: Mar. 17 to May 8. Records good. Diurnal fluctuation caused by operation of millpond on Scoggins Creek upstream from station and regulation by Henry Hagg Lake since January 1975. Diversions upstream from station of approximately 3,000 acre-ft from J. W. Barney Reservoir on the Middle Fork of North Fork Trask River for municipal water supply and irrigation in Wapato Lake area.

AVERAGE DISCHARGE.--48 years, 397 ft^3/s, 287,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,100 ft^3/s Dec. 22, 1964, gage height, 19.34 ft, from rating curve extended above 6,000 ft^3/s; minimum discharge, 0.08 ft^3/s Sept. 3, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,490 ft^3/s Feb. 1, gage height, 18.19 ft; minimum discharge, 34 ft^3/s Nov. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	165	731	846	2920	312	227	105	93	162	168	129
2	45	141	661	1070	2840	411	214	140	67	198	168	130
3	43	119	596	927	2140	1250	208	160	54	204	171	130
4	42	73	552	1040	1800	2780	200	135	51	205	170	131
5	41	67	528	1180	1470	2160	193	95	57	212	169	132
6	40	65	507	1090	1250	1940	191	71	62	207	170	131
7	39	72	483	939	1070	1660	185	82	59	189	167	131
8	39	74	373	820	932	1410	188	103	57	191	167	132
9	40	65	154	719	819	1060	181	100	79	191	166	133
10	43	60	133	604	746	1270	181	98	79	189	169	124
11	53	55	121	549	679	1270	210	96	78	186	169	109
12	58	52	121	488	519	1630	220	99	79	186	169	111
13	60	45	146	394	417	1790	203	80	75	182	171	113
14	63	37	238	452	459	1620	189	67	75	180	173	115
15	65	36	292	430	457	1420	178	64	74	178	172	118
16	66	46	246	375	548	1230	156	55	75	180	175	118
17	70	103	207	323	630	1090	158	53	76	183	173	110
18	78	114	185	287	606	943	183	53	82	201	170	109
19	79	210	175	260	523	781	170	57	109	174	169	106
20	79	308	158	231	452	680	150	93	109	154	165	105
21	78	403	149	205	396	602	125	85	114	156	164	99
22	80	438	179	191	346	538	118	63	114	165	162	94
23	81	506	375	190	328	484	113	79	111	163	162	94
24	82	1090	406	309	288	399	101	78	109	165	161	93
25	92	1520	387	520	258	349	97	77	110	172	155	93
26	114	1070	411	694	232	362	93	70	124	172	140	93
27	136	1430	383	781	227	348	91	58	141	173	142	96
28	152	1570	327	1010	243	332	85	50	140	170	139	96
29	183	1050	555	1250	---	313	80	50	140	168	138	96
30	210	741	762	1100	---	282	79	61	139	169	140	93
31	266	---	658	1060	---	240	---	99	---	168	136	---
TOTAL	2565	11725	11199	20334	23595	30956	4767	2576	2732	5593	5030	3364
MEAN	82.7	391	361	656	843	999	159	83.1	91.1	180	162	112
MAX	266	1570	762	1250	2920	2780	227	160	141	212	175	133
MIN	39	36	121	190	227	240	79	50	51	154	136	93
AC-FT	5090	23260	22210	40330	46800	61400	9460	5110	5420	11090	9980	6670

CAL YR 1986 TOTAL 108535 MEAN 297 MAX 2540 MIN 36 AC-FT 215300
WTR YR 1987 TOTAL 124436 MEAN 341 MAX 2920 MIN 36 AC-FT 246800

14207000 OSWEGO CANAL NEAR LAKE OSWEGO, OR

LOCATION.--Lat 45°23'18", long 122°43'11", in NW 1/4 NW 1/4 sec.20, T.2 S., R.1 E., Clackamas County, Hydrologic Unit 17090010, on left bank 0.4 mi downstream from point of diversion on Tualatin River, 1.0 mi upstream from Lake Oswego, and 3.5 mi southwest of town of Lake Oswego.

PERIOD OF RECORD.--October 1928 to current year. October 1951 to September 1970, Oswego Canal records were not published separately, but were combined with records for Tualatin River at West Linn.

GAGE.--Water-stage recorder. Datum of gage is 96.50 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 15, 1928, nonrecording gage 800 ft upstream at different datum. Nov. 15, 1928, to June 29, 1939, nonrecording gage 900 ft downstream at datum about 1.0 ft higher.

REMARKS.--No estimated daily discharges. Records good except those above 130 ft^3/s, which are fair. Oswego Canal diverts water from Tualatin River in NW 1/4 sec.20, but diversion dam is in NE 1/4 sec.33, about 3 mi downstream. Water used for recreational facilities and development of power below Lake Oswego and returned to Willamette River at that point.

AVERAGE DISCHARGE.--59 years, 68.9 ft^3/s, 49,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,000 ft^3/s Dec. 23, 1933; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 178 ft^3/s Dec. 29, gage height, 6.33 ft; minimum discharge, 2.4 ft^3/s July 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	78	95	148	34	4.2	80	37	7.5	11	65	65
2	48	70	108	59	19	5.2	76	28	7.4	20	65	62
3	44	56	99	3.6	14	9.4	73	29	7.3	24	65	62
4	41	43	88	3.5	18	6.4	70	30	7.3	51	67	64
5	37	37	77	3.5	19	5.9	67	32	7.2	52	66	63
6	35	32	78	3.7	21	6.0	64	40	6.8	62	64	63
7	35	30	83	4.3	20	5.7	64	17	6.4	76	64	64
8	41	29	79	4.5	20	6.1	63	16	6.4	70	65	65
9	45	34	75	4.9	35	7.6	61	15	8.9	62	65	66
10	50	45	62	5.4	90	7.8	61	15	24	69	65	66
11	50	32	51	5.0	134	9.0	61	14	40	72	65	67
12	49	25	49	6.5	124	11	63	15	25	72	66	68
13	49	35	51	7.2	101	9.0	63	14	5.6	71	66	65
14	51	39	66	9.6	51	11	61	10	4.2	70	66	66
15	51	38	86	9.6	49	8.8	58	9.9	4.5	68	64	64
16	51	37	96	10	47	8.7	55	10	16	69	63	63
17	52	44	92	11	46	8.9	42	11	25	69	63	65
18	54	50	82	11	46	6.6	27	11	16	72	63	65
19	55	68	75	11	46	4.5	27	11	7.1	74	63	64
20	55	75	70	11	46	4.8	26	19	6.7	69	63	64
21	56	88	65	11	45	4.5	25	17	6.7	64	58	66
22	55	97	62	10	43	4.5	24	10	6.1	67	56	65
23	57	99	69	14	41	4.8	23	9.9	5.9	65	63	64
24	58	104	99	14	39	5.2	22	9.6	13	66	61	65
25	62	107	119	18	37	19	22	14	26	66	64	65
26	74	104	136	20	35	70	22	12	25	66	64	66
27	68	114	143	22	24	89	34	12	25	68	63	67
28	67	102	145	26	3.9	82	42	12	12	66	61	68
29	61	89	157	24	---	85	41	10	2.8	67	60	66
30	63	92	154	24	---	92	41	7.6	2.7	67	60	65
31	69	---	156	37	---	86	---	7.5	---	66	64	---
TOTAL	1634	1893	2867	552.3	1247.9	689.2	1458	505.5	364.5	1931	1967	1948
MEAN	52.7	63.1	92.5	17.8	44.6	22.2	48.6	16.3	12.1	62.3	63.5	64.9
MAX	74	114	157	148	134	92	80	40	40	76	67	68
MIN	35	25	49	3.5	3.9	4.2	22	7.5	2.7	11	56	62
AC-FT	3240	3750	5690	1100	2480	1370	2890	1000	723	3830	3900	3860

CAL YR 1986 TOTAL 26086 MEAN 71.5 MAX 157 MIN 25 AC-FT 51740
WTR YR 1987 TOTAL 17057.4 MEAN 46.7 MAX 157 MIN 2.7 AC-FT 33830

14207500 TUALATIN RIVER AT WEST LINN, OR
(National stream quality accounting network station)

LOCATION.--Lat 45°21'03", long 122°40'30", in SW 1/4 sec.34, T.2 S., R.1 E., Clackamas County, Hydrologic Unit 17090010, on left bank 300 ft upstream from bridge on State Highway 212, 0.4 mi west of West Linn city limits, and at mile 1.8.

DRAINAGE AREA.--706 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1928 to current year. Prior to October 1960, published as "near Willamette."

REVISED RECORDS.--WSP 1014: 1943. WSP 1184: 1947. WSP 1248: 1941. WSP 1935: Drainage area. WDR OR-75-1: 1974(M). WDR OR-77-1: 1971-73, 1975, 1976(M).

GAGE.--Water-stage recorder. Datum of gage is 85.61 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 12, 1941, nonrecording gage at datum 1.02 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. October 1951 to September 1970, all records published for this station included the daily flow in Oswego Canal. Oswego Canal diverts at point 5.0 mi upstream from station for development of power between outlet of Lake Oswego and Willamette River. Some regulation in low-water season by flashboards on crest of diversion dam for Oswego Canal and regulation by Henry Hagg Lake since January 1975. Several diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--59 years, 1,531 ft³/s, 29.45 in/yr, 1,109,000 acre-ft/yr, adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 ft³/s Dec. 23, 1933, gage height, 17.72 ft; minimum daily discharge, 0.20 ft³/s July 30 to Aug. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,900 ft³/s Feb. 5, gage height, 12.20 ft; minimum discharge, 38 ft³/s Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	539	3820	4270	8010	1440	1190	521	412	186	124	101
2	181	550	3480	4860	8020	1600	1110	568	460	157	116	92
3	164	432	3040	5060	8920	2770	1070	552	396	178	121	77
4	147	327	2500	5160	10500	4760	1010	618	315	199	128	68
5	132	256	2010	5070	10800	5000	960	593	260	214	112	64
6	122	215	1720	4960	9880	5290	908	503	234	252	95	59
7	95	202	1540	4820	8760	5740	885	442	220	255	91	53
8	68	198	1400	4640	7710	6030	874	380	194	220	93	55
9	66	176	1240	4400	6790	6130	840	359	189	210	94	60
10	58	237	993	4070	5910	6250	840	339	157	197	89	65
11	79	286	815	3630	5140	6010	845	325	64	184	91	72
12	76	200	764	3360	4450	6210	878	386	89	178	97	78
13	78	145	791	3100	4080	6240	882	406	117	165	105	80
14	79	166	1070	3040	3700	6270	837	431	149	144	128	83
15	83	171	1410	3020	3350	6220	780	389	176	116	159	96
16	84	168	1590	2930	3120	6150	732	350	176	102	166	109
17	86	200	1520	2660	3000	6030	821	315	165	96	165	112
18	90	228	1370	2340	3060	5790	945	288	163	204	161	105
19	92	342	1250	2050	3100	5480	964	277	168	305	137	94
20	96	583	1160	1810	3070	5070	865	255	164	325	120	86
21	100	983	1060	1610	2920	4610	780	260	204	257	112	84
22	101	1360	1000	1460	2670	4030	712	277	255	260	113	80
23	101	1560	1130	1400	2380	3500	659	256	270	214	106	74
24	100	2050	1610	1560	2150	2970	628	227	234	178	111	68
25	105	2760	1980	2350	1940	2450	587	227	181	160	114	66
26	201	3140	2340	3430	1730	2000	541	250	153	153	99	70
27	369	3650	2490	3830	1570	1760	505	250	136	160	87	75
28	423	4360	2540	4200	1450	1620	472	247	145	168	75	81
29	383	4290	3130	4620	---	1500	461	241	184	153	69	84
30	395	4060	3790	4630	---	1370	451	281	206	137	69	81
31	439	---	3900	5190	---	1280	---	329	---	126	76	---
TOTAL	4790	33834	58453	109530	138180	131570	24032	11142	6236	5853	3423	2372
MEAN	155	1128	1886	3533	4935	4244	801	359	208	189	110	79.1
MAX	439	4360	3900	5190	10800	6270	1190	618	460	325	166	112
MIN	58	145	764	1400	1450	1280	451	227	64	96	69	53
AC-FT	9500	67110	115900	217300	274100	261000	47670	22100	12370	11610	6790	4700
MEAN†	207	1191	1978	3552	4980	4267	850	376	220	251	174	144
CFSM†	0.29	1.69	2.80	5.03	7.05	6.04	1.20	0.53	0.31	0.36	0.25	0.20
IN.†	0.34	1.88	3.23	5.80	7.35	6.97	1.34	0.61	0.35	0.41	0.28	0.23
AC-FT†	12740	70860	121600	218400	276600	262400	50560	23100	13090	15440	10690	8570

CAL YR 1986 TOTAL 408623 MEAN 1120 MAX 5560 MIN 58 AC-FT 810500 MEAN† 1191 CFSM† 1.69 IN.† 22.90 AC-FT† 862200
WTR YR 1987 TOTAL 529415 MEAN 1450 MAX 10800 MIN 53 AC-FT 1050000 MEAN† 1497 CFSM† 2.12 IN.† 28.80 AC-FT† 1084000

† Adjusted for diversion of Oswego Canal.

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

RIOD OF RECORD.--Water years 1975 to current year.

RIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to September 1981.
WATER TEMPERATURE: October 1975 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
V 12...	1310	230	190	7.2	9.5	6.6	57	31	160	51	0	13
R 26...	1045	2020	100	7.4	9.0	10	87	K37	K48	38	0	9.6
R 22...	1115	716	140	7.6	12.5	8.7	81	K1	K11	48	0	12
G 19...	1030	135	184	7.7	20.0	5.4	59	M1	K4300	51	3	13

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS IT FIELD (MG/L AS CACO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
V 12...	4.4	12	3.3	60	73	0	15	12	0.2	0.73	1.7	1.4
R 26...	3.4	6.1	1.4	38	47	0	5.9	5.0	<0.1	0.24	1.1	0.7
R 22...	4.4	9.4	1.9	49	58	0	8.3	8.5	0.1	0.47	1.0	0.8
G 9...	4.5	14	1.4	48	58	0	15	12	0.4	0.47	2.0	0.5

DATE	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 12...	0.34	0.39	22	123	128	76.4	1.9	8	5.0	67
MAR 26...	0.17	0.19	21	79	81	431	9.0	12	65	--
APR 22...	0.33	0.37	21	88	101	170	6.5	--	--	--
AUG 19...	0.30	0.36	23	131	125	47.7	2.0	27	9.8	93

M - Presence of material verified but not quantified.
K - Results based on colony count outside acceptable range (non-ideal colony count).

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV										
12...	140	1	19	<0.5	1	<1	<3	9	640	<5
MAR										
26...	160	<1	18	<0.5	<1	<1	<3	6	420	<5
APR										
22...	190	1	17	<0.5	<1	<1	<3	<1	180	<5
AUG										
19...	140	1	18	<0.5	<1	<1	<3	5	330	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV										
12...	5	120	0.1	<10	2	<1	<1	60	<6	25
MAR										
26...	<4	50	<0.1	<10	2	<1	<1	55	<6	18
APR										
22...	7	45	<0.1	<10	3	<1	<1	64	<6	14
AUG										
19...	<4	170	0.1	<10	4	<1	<1	63	<6	41

14207740 WILLAMETTE RIVER ABOVE FALLS, AT OREGON CITY, OR

LOCATION.--Lat 45°20'55", long 122°37'08", in SW 1/4 SW 1/4 sec.31, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090007, on right bank 0.2 mi above Willamette Falls, 0.6 mi downstream from Tualatin River, and at mile 26.8.

DRAINAGE AREA.--10,000 mi^2, approximately.

PERIOD OF RECORD.--October 1976 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 64.79 ft Dec. 17, 1977; minimum recorded, 52.65 ft Feb. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 62.13 ft Feb. 3; minimum, 52.89 ft Aug. 27.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56.85	56.33	60.83	57.02	60.31	54.98	54.74	54.56	53.61	54.61	55.54	53.62
2	56.80	56.46	60.27	57.90	61.54	55.09	54.62	54.63	53.75	54.77	55.55	53.25
3	56.69	56.29	59.80	58.66	62.05	55.78	54.53	54.73	53.68	55.47	55.58	52.94
4	56.53	56.11	59.09	59.00	61.83	57.24	54.49	54.79	53.53	55.50	55.56	52.97
5	56.36	56.03	58.14	58.97	60.98	57.36	54.45	54.72	53.38	55.48	55.51	53.10
6	56.23	56.07	57.49	58.53	59.97	57.03	54.40	54.64	53.31	55.20	55.52	53.27
7	55.96	56.36	57.12	58.11	58.98	56.66	54.39	54.56	53.29	54.57	55.55	53.42
8	55.58	56.69	56.87	57.70	58.02	56.31	54.42	54.49	53.26	54.10	55.57	53.58
9	55.54	56.79	56.61	57.12	57.38	56.06	54.61	54.43	53.21	53.60	55.55	53.82
10	55.48	56.80	56.08	56.62	57.03	56.31	54.87	54.36	53.17	53.25	55.53	54.13
11	55.42	56.85	55.70	56.19	56.63	56.67	54.94	54.32	53.13	53.33	55.53	54.03
12	55.41	56.91	55.61	55.99	56.20	56.91	55.10	54.31	53.12	53.42	55.48	53.70
13	55.42	56.85	55.62	56.15	56.06	57.57	55.03	54.38	53.11	53.50	55.49	53.64
14	55.43	56.78	55.80	56.45	56.39	57.97	54.89	54.44	53.08	53.62	55.50	53.85
15	55.51	56.76	56.19	56.53	57.04	57.99	54.64	54.39	53.06	53.64	55.53	54.20
16	55.70	56.75	56.27	56.31	57.16	57.97	54.48	54.33	53.05	53.52	55.59	54.28
17	55.73	56.88	56.03	56.02	57.22	57.64	54.42	54.27	53.28	53.43	55.60	54.27
18	55.72	57.20	55.81	55.68	57.30	57.32	54.61	54.23	53.11	53.72	55.58	54.25
19	55.75	57.46	55.58	55.40	57.21	57.36	54.73	54.20	53.05	54.77	55.20	54.19
20	55.75	57.67	55.39	55.21	56.79	57.30	54.62	54.17	53.03	55.34	54.94	54.18
21	55.69	58.06	55.22	55.05	56.43	57.08	54.47	54.14	53.08	55.21	54.74	54.10
22	55.67	58.59	55.12	54.87	56.14	56.83	54.36	53.96	53.11	54.96	54.16	53.87
23	55.73	59.25	55.33	54.75	55.96	56.64	54.29	53.48	53.44	54.87	54.04	53.69
24	55.71	59.63	55.91	54.92	55.84	56.63	54.21	53.41	54.29	55.25	53.95	53.56
25	55.72	59.73	56.00	56.04	55.62	56.44	54.15	53.42	54.73	55.61	53.59	53.48
26	55.80	59.63	56.17	57.64	55.39	56.19	54.10	53.46	54.80	55.58	53.14	53.55
27	55.85	59.71	56.40	58.74	55.19	56.01	54.41	53.43	54.76	55.61	52.96	53.71
28	56.02	60.50	56.29	59.37	55.03	55.84	54.63	53.44	54.73	55.62	53.16	53.89
29	55.92	61.01	56.40	59.63	---	55.69	54.60	53.42	54.79	55.60	53.26	54.02
30	55.86	61.13	56.97	59.43	---	55.54	54.57	53.35	54.74	55.56	53.41	54.04
31	55.97	---	57.04	59.05	---	55.13	---	53.43	---	55.54	53.58	---
MEAN	55.86	57.71	56.68	57.07	57.56	56.63	54.56	54.13	53.59	54.65	54.84	53.75
MAX	56.85	61.13	60.83	59.63	62.05	57.99	55.10	54.79	54.80	55.62	55.60	54.28
MIN	55.41	56.03	55.12	54.75	55.03	54.98	54.10	53.35	53.03	53.25	52.96	52.94

WTR YR 1987 MEAN 55.58 MAX 62.05 MIN 52.94

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR

LOCATION.--Lat 45°21'28", long 122°36'35", in NE 1/4 NW 1/4 sec.31, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090007, on right bank 0.5 mi below Willamette Falls, 1.4 mi upstream from Clackamas River, and at mile 26.2.

DRAINAGE AREA.--10,000 mi^2, approximately.

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Oregon State Highway Division bench mark).

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 32.18 ft Feb. 21, 1982; minimum, 1.80 ft Aug. 11, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 23.93 ft Feb. 3; minimum, 2.19 ft Aug. 18.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.73	5.61	6.62	9.23	6.68	7.78	---	---	---	13.36	---	---
2	7.76	5.54	6.51	9.02	6.64	---	---	---	---	14.82	12.69	13.68
3	7.93	5.58	6.52	8.98	6.29	---	---	---	---	15.78	14.43	15.07
4	7.49	4.89	6.09	8.77	6.01	7.14	---	---	---	16.06	15.31	15.68
5	7.14	4.34	5.61	---	5.94	---	---	---	---	15.93	15.15	15.55
6	7.47	4.25	5.52	---	6.02	---	---	11.63	---	15.21	13.82	14.50
7	8.23	4.48	5.89	---	6.62	---	---	---	---	13.92	13.15	13.58
8	7.99	4.99	6.07	---	6.50	---	---	10.07	---	---	---	---
9	7.21	4.64	5.60	---	6.83	---	10.44	9.38	---	---	---	---
10	6.57	4.40	5.24	---	6.27	---	9.54	8.39	9.21	---	---	---
11	6.43	4.00	4.82	---	6.78	---	9.25	8.00	8.57	10.05	8.98	9.51
12	6.10	3.45	4.66	---	6.76	---	9.36	---	---	10.30	8.80	9.44
13	6.49	3.84	5.16	---	6.47	---	9.64	7.79	8.48	10.48	9.03	9.76
14	7.00	4.29	5.53	---	6.70	---	10.23	7.98	9.02	11.01	9.68	10.30
15	7.65	4.83	6.03	---	6.61	---	10.94	8.95	9.95	10.92	10.06	10.44
16	8.00	5.12	6.32	---	---	---	10.31	9.40	9.89	10.55	9.88	10.26
17	8.12	5.31	6.42	---	---	---	9.68	8.83	9.18	9.78	---	---
18	7.83	4.95	6.14	---	---	---	9.61	8.29	8.84	9.11	8.16	8.69
19	7.47	4.75	5.79	---	---	---	9.16	7.92	8.49	8.72	7.75	8.33
20	7.94	4.48	5.78	---	---	---	8.32	7.07	7.65	8.61	7.65	8.11
21	7.76	5.13	6.10	---	---	---	8.12	6.34	7.19	8.41	---	---
22	7.27	5.13	5.97	---	13.70	---	8.33	6.38	7.38	8.31	7.27	---
23	6.88	4.35	5.36	16.54	---	---	8.41	6.76	7.71	8.56	6.77	7.50
24	6.45	4.13	5.03	17.70	16.54	17.08	9.44	7.87	8.51	9.62	7.14	8.25
25	5.89	4.40	5.27	---	---	---	9.17	7.99	8.54	10.69	8.14	9.53
26	5.88	4.12	5.14	---	---	---	10.10	8.47	9.05	14.19	10.75	12.78
27	6.39	4.47	5.46	19.17	16.99	17.93	10.57	8.98	9.50	16.39	14.21	15.49
28	6.59	4.16	5.76	20.91	19.17	20.17	10.52	8.99	---	17.65	16.15	16.96
29	7.05	4.60	5.71	21.24	20.83	20.99	11.85	8.89	---	18.06	17.21	17.57
30	8.08	5.08	6.51	---	---	---	12.54	---	---	17.42	16.54	17.10
31	8.71	5.87	7.05	---	---	---	---	---	---	17.13	15.78	16.22
MONTH	8.71	3.45	5.79	---	---	---	---	---	---	---	---	---

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBFR 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	22.46	17.19	20.26	9.16	6.82	7.85	8.67	6.19	7.06	---	---	---
2	23.64	22.42	23.04	9.49	7.07	8.20	8.38	5.81	6.76	---	---	---
3	23.93	23.31	23.61	11.53	7.99	9.77	8.12	5.81	6.59	---	---	---
4	23.38	21.71	22.60	13.24	11.53	12.58	7.25	5.21	6.06	---	---	---
5	21.63	19.06	20.37	13.16	12.04	12.59	6.85	5.13	5.78	---	---	---
6	18.95	16.60	17.80	12.15	10.91	11.56	6.43	5.00	5.70	---	---	---
7	16.50	14.18	15.49	10.90	9.41	10.22	6.12	4.86	5.57	---	---	---
8	14.12	11.94	13.12	9.69	8.55	9.27	6.66	5.07	5.69	---	---	---
9	11.92	10.98	11.65	9.34	8.62	8.88	6.93	5.75	6.54	---	---	---
10	11.48	10.57	11.04	10.20	8.65	9.51	8.05	6.27	7.16	---	---	---
11	10.85	9.70	10.39	10.95	9.73	10.43	8.21	6.44	7.26	---	---	---
12	10.46	9.24	9.68	11.81	10.24	11.10	8.22	6.68	7.40	---	---	---
13	10.97	8.95	9.73	13.47	11.50	12.65	8.48	6.92	7.63	---	---	---
14	11.45	9.70	10.54	14.25	13.25	13.74	9.14	7.16	7.96	---	---	---
15	12.39	10.91	11.60	14.22	13.52	13.88	9.42	7.03	7.83	---	---	---
16	12.18	11.35	11.74	14.05	12.97	13.57	7.78	6.45	7.07	---	---	---
17	12.21	11.33	11.79	13.05	12.09	12.52	---	---	---	---	---	---
18	12.40	11.62	11.95	12.46	11.51	11.92	---	---	---	---	---	---
19	12.09	11.10	11.55	12.70	11.62	12.14	---	---	---	---	---	---
20	11.35	10.06	10.74	12.33	10.98	11.69	---	---	---	---	---	---
21	10.47	9.16	9.82	11.41	10.07	10.70	---	---	---	---	---	---
22	9.68	8.28	9.01	10.31	9.10	9.74	---	---	---	---	---	---
23	9.55	8.21	8.67	9.94	8.73	9.27	---	---	---	---	---	---
24	9.53	7.97	8.67	9.55	8.35	9.01	---	---	---	---	---	---
25	9.56	7.84	8.43	9.09	7.75	8.51	---	---	---	---	---	---
26	9.55	7.63	8.36	9.00	7.42	8.12	---	---	---	---	---	---
27	9.48	7.25	8.13	9.10	7.25	7.99	---	---	---	---	---	---
28	9.22	6.87	7.83	8.85	7.27	7.97	---	---	---	---	---	---
29	---	---	---	8.62	6.71	7.48	---	---	---	---	---	---
30	---	---	---	8.68	6.47	7.32	---	---	---	---	---	---
31	---	---	---	8.73	6.34	7.26	---	---	---	---	---	---
MONTH	23.93	6.87	12.77	14.25	6.34	10.24	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.02	5.79	6.32	6.31	3.58	4.83	5.75	2.53	3.97	6.33	3.13	4.18
2	6.93	5.43	6.30	6.01	3.01	4.29	5.61	2.31	3.64	6.10	2.51	3.85
3	6.86	5.55	6.24	5.99	2.66	4.19	5.85	2.35	3.51	6.03	2.28	3.70
4	6.82	5.14	6.07	5.87	2.35	3.84	5.94	2.62	3.83	5.96	2.68	4.02
5	6.68	5.01	5.78	5.82	2.59	3.83	6.12	2.51	3.82	6.52	2.57	4.26
6	6.60	5.50	5.95	5.88	2.77	3.97	6.15	2.60	4.19	6.04	2.39	4.27
7	7.41	5.64	6.28	6.19	2.77	4.11	7.11	3.58	5.10	6.37	2.61	---
8	7.90	5.88	6.58	6.52	2.90	4.42	7.48	3.57	5.28	4.62	---	---
9	8.15	5.48	6.50	6.95	3.49	4.97	7.48	3.50	5.31	6.93	---	---
10	8.15	5.50	6.58	6.88	3.85	5.37	6.96	3.13	4.97	7.22	3.62	---
11	8.86	6.04	7.11	8.06	3.93	5.55	7.14	3.39	---	6.36	3.54	---
12	8.87	5.19	6.59	7.71	3.54	5.35	7.54	3.97	5.55	---	---	---
13	8.22	4.17	5.81	7.32	3.48	5.19	5.83	3.34	---	4.58	---	---
14	7.80	3.98	5.61	7.27	3.67	5.28	6.49	2.91	4.19	5.67	3.42	3.98
15	7.52	3.74	5.33	6.93	3.63	5.18	6.13	2.89	4.29	---	3.12	3.92
16	6.91	3.36	4.93	6.12	3.09	4.42	5.49	2.54	3.77	4.35	2.75	---
17	6.48	3.45	4.67	6.34	2.88	4.42	5.37	2.26	3.26	4.29	2.88	---
18	6.59	3.50	4.59	6.16	2.48	4.01	5.24	2.19	3.45	---	---	---
19	6.68	3.51	4.72	6.00	2.68	3.86	5.59	2.34	3.78	---	---	---
20	6.96	3.75	4.80	6.11	3.28	4.36	5.69	2.34	3.90	---	---	---
21	6.29	3.84	4.82	6.54	3.44	4.78	5.90	2.66	4.21	---	---	---
22	6.95	3.52	4.76	6.90	3.52	4.78	6.35	2.95	4.44	---	---	---
23	6.75	3.34	4.66	6.48	3.07	4.59	6.51	2.87	4.45	---	---	---
24	6.35	2.70	4.32	6.83	3.16	4.74	6.26	2.82	4.41	---	---	---
25	6.78	3.47	4.79	6.81	3.05	4.68	6.28	2.81	4.43	---	---	---
26	6.99	3.36	4.77	5.71	2.82	3.84	6.24	2.79	4.42	6.69	3.30	---
27	6.80	3.29	4.71	6.27	2.76	4.43	6.18	2.83	4.45	---	---	---
28	6.54	2.83	4.51	6.52	3.06	4.55	6.49	3.08	---	---	---	---
29	6.42	2.95	4.67	6.55	3.37	4.84	6.13	2.90	4.39	---	---	---
30	6.63	3.48	4.90	6.01	2.76	4.42	5.94	2.55	3.97	---	---	---
31	---	---	---	6.03	2.89	4.22	6.24	2.59	3.85	---	---	---
MONTH	8.87	2.70	5.46	8.06	2.35	4.56	7.54	2.19	---	---	---	---

14208600 TIMOTHY LAKE NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°06'50", long 121°48'35", in NE 1/4 sec.27, T.5 S., R.8 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, in intake structure 350 ft upstream from dam on Oak Grove Fork, 0.4 mi upstream from Anvil Creek, 14 mi south of Government Camp, and at mile 15.8.

DRAINAGE AREA.--53.8 mi^2.

PERIOD OF RECORD.--May 1956 to current year. Prior to October 1957, published as Timothy Meadows Reservoir.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Portland General Electric Co.).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway built by Portland General Electric Co. Usable storage began May 28, 1956. Capacity, 65,710 acre-ft at elevation 3,190 ft, normal maximum operating level. Usable capacity increased in 1966 water year to 64,450 acre-ft between elevations 3,125.0 ft, invert of outlet pipe, and 3,192.0 ft, top of radial gates. Storage of 4,060 acre-ft below elevation 3,125.0 ft not normally available for release. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Elevations and capacity table furnished by Portland General Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 68,800 acre-ft Oct. 3, 1967, elevation, 3,192.2 ft; minimum contents observed, 16,010 acre-ft Feb. 24, 1957, elevation, 3,144.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 65,810 acre-ft May 9, elevation, 3,190.07 ft; minimum contents observed, 45,500 acre-ft Dec. 31, elevation, 3,174.10 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,183.84	57,530	-
Oct. 31	3,184.21	58,000	+470
Nov. 30	3,181.85	54,990	-3,010
Dec. 31	3,174.10	45,500	-9,490
CAL YR 1986	-	-	+570
Jan. 31	3,176.75	48,680	+3,180
Feb. 28	3,181.25	54,240	+5,560
Mar. 31	3,186.59	61,120	+6,880
Apr. 30	3,188.52	63,690	+2,570
May 31	3,189.66	65,240	+1,550
June 30	3,189.90	65,570	+330
July 31	3,189.90	65,570	0
Aug. 31	3,189.90	65,570	0
Sept.30	3,187.22	61,950	-3,620
WTR YR 1987	-	-	+4,420

14208700 OAK GROVE FORK NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°06'50", long 121°48'50", in NE 1/4 sec.27, T.5 S., R.8 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.1 mi upstream from Anvil Creek. 0.3 mi downstream from Timothy Lake, 14 mi south of Government Camp, and at mile 15.5.

DRAINAGE AREA.--54.4 mi².

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 3,041.83 ft above National Geodetic Vertical Datum of 1929 (Portland General Electric Co. bench mark).

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since 1956 by Timothy Lake (station 14208600). No diversion upstream from station.

AVERAGE DISCHARGE.--31 years, 131 ft³/s, 32.70 in/yr, 94,910 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s Dec. 24, 1964, gage height, 3.93 ft, from rating curve extended above 290 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 3.7 ft³/s Sept. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 390 ft³/s Nov. 1, gage height, 2.47 ft; minimum discharge, 32 ft³/s May 22, 25-29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	370	129	110	43	40	45	99	34	61	48	43
2	161	360	160	110	43	40	46	99	33	61	48	43
3	165	271	205	110	42	41	46	99	33	60	48	43
4	165	138	222	110	42	42	46	107	75	53	45	45
5	172	155	225	110	41	42	46	89	83	52	41	48
6	172	153	252	110	41	42	46	37	65	43	39	48
7	127	295	270	67	41	42	46	37	64	43	45	44
8	38	328	280	40	40	42	47	37	64	49	56	118
9	35	330	294	40	40	42	129	37	65	56	56	124
10	35	345	299	40	40	42	143	66	66	55	43	122
11	36	350	304	40	40	42	143	37	65	55	43	122
12	36	351	312	40	40	44	176	38	64	55	43	122
13	36	352	294	40	42	43	176	37	65	54	43	122
14	36	349	295	40	43	43	129	37	56	54	44	121
15	36	351	314	40	43	42	143	133	53	52	44	121
16	36	313	322	40	42	42	126	201	54	42	42	120
17	36	126	326	40	42	43	79	212	54	43	42	120
18	36	90	330	40	42	43	65	211	54	73	43	120
19	36	106	332	40	42	42	130	103	69	66	43	120
20	36	43	336	40	42	42	132	37	79	50	43	120
21	36	43	336	41	40	42	131	35	78	59	43	125
22	36	44	312	42	40	42	131	33	71	60	43	125
23	36	44	289	42	40	43	109	33	59	54	43	125
24	36	45	320	42	40	46	110	33	53	57	43	125
25	36	44	326	41	40	46	99	33	53	60	43	125
26	36	46	309	41	40	46	99	33	52	58	43	125
27	36	50	329	41	40	46	99	32	52	48	43	125
28	36	48	331	42	40	45	98	33	51	48	43	125
29	36	46	311	42	---	45	98	33	51	49	43	125
30	37	64	224	42	---	45	99	34	55	49	43	129
31	114	---	118	42	---	45	---	34	---	49	43	---
TOTAL	2048	5650	8706	1705	1151	1332	3012	2119	1770	1668	1372	3140
MEAN	66.1	188	281	55.0	41.1	43.0	100	68.4	59.0	53.8	44.3	105
MAX	172	370	336	110	43	46	176	212	83	73	56	129
MIN	35	43	118	40	40	40	45	32	33	42	39	43
AC-FT	4060	11210	17270	3380	2280	2640	5970	4200	3510	3310	2720	6230
MEAN†	73.6	138	127	107	141	155	144	93.5	64.5	53.8	44.2	43.9
CFSM†	1.35	2.53	2.33	1.96	2.59	2.85	2.64	1.72	1.19	0.99	0.91	0.81
IN.†	1.56	2.83	2.68	2.26	2.70	3.28	2.94	1.98	1.32	1.14	0.94	0.90
AC-FT†	4530	8200	7780	6560	7840	9520	8540	5750	3840	3310	2720	2610

CAL YR 1986 TOTAL 54519 MEAN 149 MAX 460 MIN 34 AC-FT 108100 MEAN† 150 CFSM† 2.76 IN.† 37.46 AC-FT† 108670
WTR YR 1987 TOTAL 33673 MEAN 92.3 MAX 370 MIN 32 AC-FT 66790 MEAN† 98.4 CFSM† 1.81 IN.† 24.55 AC-FT† 71210

† Adjusted for change in contents in Timothy Lake.

14209000 OAK GROVE FORK ABOVE POWERPLANT INTAKE, OR

LOCATION.--Lat 45°04'20", long 121°57'00", on line between secs.3 and 4, T.6 S., R.7 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.2 mi upstream from Spring Creek, 0.7 mi upstream from Kink Creek, 1.0 mi upstream from Portland General Electric Co. diversion dam, 24 mi southeast of Estacada, and at mile 6.1.

DRAINAGE AREA.--126 mi^2.

PERIOD OF RECORD.--May 1909 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as both Oak Grove Fork of Clackamas River at proposed intake, near Cazadero, and Oak Grove Fork of Clackamas River at intake, near Cazadero, May 1909 to September 1910, as Oak Grove Fork of Clackamas River at intake, near Cazadero, October 1910 to September 1921, and as Oak Grove Fork at Portland General Electric Power Co. intake, October 1921 to September 1929.

REVISED RECORDS.--WSP 1248: 1909, 1910(M), 1916, 1918, 1923, 1932. WSP 1935: 1914, 1921.

GAGE.--Water-stage recorder. Datum of gage is 2,052.31 ft above National Geodetic Vertical Datum of 1929. May 21, 1909, to Nov. 17, 1911, nonrecording gage and Mar. 26, 1912, to Sept. 30, 1923, water-stage recorder, at various sites 0.7 mi downstream, below Kink Creek, at different datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since 1956 by Timothy Lake (station 14208600). No diversion upstream from station.

AVERAGE DISCHARGE.--78 years, 500 ft^3/s, 362,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s Jan. 7, 1923, gage height, 5.45 ft, site and datum then in use, from rating curve extended above 2,300 ft^3/s on basis of peak discharge for other stations in Clackamas River basin; minimum discharge, 208 ft^3/s Aug. 28-31, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 939 ft^3/s Nov. 27, gage height, 3.03 ft; minimum discharge, 236 ft^3/s Oct. 10-17, 19-26, 29, Sept. 1, 4, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	385	623	590	398	692	362	375	524	308	286	259	240
2	397	606	583	389	636	377	390	503	292	286	259	240
3	399	535	595	412	556	411	405	492	284	286	258	241
4	398	372	590	408	503	429	410	487	318	276	255	241
5	404	374	587	395	467	436	409	475	345	275	248	245
6	406	414	590	385	444	436	411	398	316	262	245	245
7	373	594	597	342	431	419	418	397	314	260	249	241
8	244	606	596	294	422	415	462	390	313	266	265	308
9	240	608	598	288	416	416	514	379	312	276	265	341
10	240	608	595	286	411	421	575	403	310	283	251	335
11	240	607	595	282	417	426	581	357	310	276	248	336
12	240	606	595	287	413	490	591	398	306	274	249	336
13	239	608	594	285	480	532	585	364	305	273	251	336
14	237	606	593	283	491	540	528	349	299	272	250	336
15	236	602	597	273	476	505	546	427	290	272	250	336
16	236	611	593	269	462	480	549	525	289	255	246	335
17	240	546	594	268	468	503	540	534	289	265	245	335
18	241	404	597	267	445	499	481	526	287	317	245	335
19	236	504	596	265	426	469	541	420	300	298	245	335
20	236	556	601	261	413	449	531	308	318	275	245	335
21	236	652	596	262	403	437	527	302	319	285	245	337
22	236	614	598	266	400	425	528	295	313	286	245	337
23	236	616	587	266	389	421	513	298	293	276	244	337
24	236	614	597	284	376	408	513	298	279	284	243	337
25	237	535	597	304	364	400	492	290	277	284	243	339
26	241	581	588	347	355	395	487	287	276	279	243	347
27	261	824	596	364	349	383	501	283	275	262	242	340
28	242	760	597	374	346	372	527	279	274	260	242	339
29	246	636	591	354	---	367	518	276	274	261	242	338
30	290	563	520	343	---	365	530	300	278	261	240	342
31	331	---	389	442	---	366	---	323	---	259	240	---
TOTAL	8659	17385	18132	9943	12451	13354	14978	11887	8963	8530	7697	9425
MEAN	279	579	585	321	445	431	499	383	299	275	248	314
MAX	406	824	601	442	692	540	591	534	345	317	265	347
MIN	236	372	389	261	346	362	375	276	274	255	240	240
AC-FT	17180	34480	35960	19720	24700	26490	29710	23580	17780	16920	15270	18690

CAL YR 1986 TOTAL 184350 MEAN 505 MAX 2000 MIN 236 AC-FT 365700
WTR YR 1987 TOTAL 141404 MEAN 387 MAX 824 MIN 736 AC-FT 280500

14209500 CLACKAMAS RIVER ABOVE THREE LYNX CREEK, OR

LOCATION.--Lat 45°07'30", long 122°04'20", in NE1/4 sec.21, T.5 S., R.6 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.1 mi upstream from Three Lynx Creek, 0.25 mi downstream from powerplant, 17 mi southeast of Estacada, and at mile 47.8.

DRAINAGE AREA.--479 mi^2.

PERIOD OF RECORD.--April 1909 to December 1913, October 1921 to current year. Prior to October 1911 (monthly discharge only), published in WSP 1318.

REVISED RECORDS.--WSP 1148: Drainage area. WSP 1248: 1910(M), 1912, 1948-50(M).

GAGE.--Water-stage recorder. Datum of gage is 1,091.69 ft above National Geodetic Vertical Datum of 1929 (levels by Portland General Electric Co.). Apr. 23, 1909, to Jan. 4, 1914, nonrecording gage at about same site and datum. Nov. 1, 1921, to Dec. 27, 1924, water-stage recorder at present site at datum 0.91 ft higher.

REMARKS.--Estimated daily discharges: Feb. 13-15. Records excellent except those for periods of no gage-height record, which are good. Minor regulation since May 1956 by Timothy Lake (station 14208600).

AVERAGE DISCHARGE.--70 years, 1,991 ft^3/s, 56.45 in/yr, 1,442,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,200 ft^3/s Dec. 22, 1964, gage height, 21.7 ft, from floodmark, from rating curve extended above 34,100 ft^3/s on basis of slope-area measurement at gage height 15.06 ft; minimum recorded discharge, 275 ft^3/s Sept. 23, 1987; minimum daily, 410 ft^3/s Sept. 4, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1300	*12,000	*8.34	Feb. 1	1130	11,600	8.17

Minimum discharge, 275 ft^3/s Sept. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	1710	3070	2180	9800	1570	1440	2090	1420	705	610	556
2	969	1430	2650	2370	6940	1890	1630	1950	1240	694	610	566
3	935	1170	2330	2590	5190	3000	1790	2050	1120	688	604	532
4	894	1000	2160	2650	3990	3520	1780	1820	1090	676	589	537
5	874	958	2010	2280	3280	3280	1740	1850	1070	682	586	556
6	855	1080	1900	1990	2900	3150	1740	1790	996	664	580	551
7	836	1580	1780	1750	2590	2750	1800	1810	965	660	585	551
8	720	1540	1700	1540	2440	2480	2270	1750	948	652	595	600
9	659	1470	1620	1420	2390	2390	2180	1650	928	662	600	629
10	647	1440	1570	1350	2360	2410	2170	1570	891	689	580	624
11	634	1360	1530	1300	2370	2290	2520	1440	880	661	575	625
12	626	1330	1500	1320	2360	3560	2350	1800	859	652	579	625
13	758	1310	1590	1370	3000	4490	2190	1710	837	637	584	625
14	520	1360	1930	1340	3200	4480	2060	1490	829	639	592	630
15	558	1380	1900	1210	3100	3750	1950	1470	817	628	581	672
16	613	1470	1790	1130	2920	3120	2120	1490	802	621	575	604
17	622	2700	1680	1140	2760	2940	2350	1420	792	623	576	631
18	640	2460	1620	1110	2550	2880	2350	1370	785	865	573	618
19	622	3650	1570	1080	2300	2560	2100	1230	775	739	570	620
20	626	4530	1510	1120	2110	2330	1960	1070	793	694	570	620
21	679	6360	1470	994	2000	2150	1820	1030	819	745	566	616
22	506	5540	1570	1000	1920	1990	1920	994	807	729	570	615
23	602	4940	2390	991	1850	1900	2010	991	767	675	556	621
24	594	5450	2210	1230	1740	1790	2010	990	732	691	561	609
25	592	4350	2000	1760	1610	1710	1930	957	728	717	566	622
26	615	4280	2060	3000	1560	1660	1860	939	715	669	566	652
27	769	9900	1960	3750	1470	1580	1920	929	705	641	566	630
28	719	7910	1850	3520	1430	1510	2160	913	703	628	561	621
29	678	5230	1900	3000	---	1450	2090	892	698	626	551	622
30	1180	3790	1930	2580	---	1410	2050	1010	703	621	570	623
31	1710	---	1670	3650	---	1390	---	1350	---	615	575	---
TOTAL	23302	92678	58420	57715	82130	77380	60260	43815	26214	20888	17922	18203
MEAN	752	3089	1885	1862	2933	2496	2009	1413	874	674	578	607
MAX	1710	9900	3070	3750	9800	4490	2520	2090	1420	865	610	672
MIN	506	958	1470	991	1430	1390	1440	892	698	615	551	532
AC-FT	46220	183800	115900	114500	162900	153500	119500	86910	52000	41430	35550	36110
CFSM	1.57	6.45	3.93	3.89	6.12	5.21	4.19	2.95	1.82	1.41	1.21	1.27
IN.	1.81	7.20	4.54	4.48	6.38	6.01	4.68	3.40	2.04	1.62	1.39	1.41

CAL YR 1986 TOTAL 760766 MEAN 2084 MAX 22000 MIN 410 AC-FT† 1509000 CFSM 4.35 IN. 59.08
WTR YR 1987 TOTAL 578927 MEAN 1586 MAX 9900 MIN 506 AC-FT 1148000 CFSM 3.31 IN. 44.96

14210000 CLACKAMAS RIVER AT ESTACADA, OR

LOCATION.--Lat 45°18'00", long 122°21'10", in NE 1/4 sec.19, T.3 S., R.4 E., Clackamas County, Hydrologic Unit 17090011, on left bank 0.2 mi downstream from River Mill Dam, 1.5 mi northwest of Estacada, and at mile 23.1.

DRAINAGE AREA.--671 mi^2.

PERIOD OF RECORD.--April 1908 to current year. Monthly discharge only April 1908, published in WSP 1318. Published as "near Cazadero" January 1909 to September 1957.

REVISED RECORDS.--WSP 1248: 1908-9, 1910(M), 1916, 1917(M), 1922(M), 1923. WSP 1288: Drainage area (former site). WSP 1638: 1919(M).

GAGE.--Water-stage recorder. Datum of gage is 296.93 ft above National Geodetic Vertical Datum of 1929 (levels by Portland General Electric Co.). See WSP 1738 for history of changes prior to Oct. 1, 1957. Oct. 1, 1957, to Feb. 16, 1965, water-stage recorder at same site at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: June 5 to July 28. Records excellent. Large diurnal fluctuations and some regulation caused by powerplants at River Mill Dam and, since 1958, North Fork Dam. Minor regulation since 1956 by Timothy Lake (station 14208600). Two small diversions upstream from station for Oregon City and Estacada municipal water supply.

AVERAGE DISCHARGE.--79 years, 2,753 ft^3/s, 55.72 in/yr, 1,995,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86,900 ft^3/s Dec. 22, 1964, gage height, 18.36 ft; minimum discharge, 50 ft^3/s Mar. 10, 1961, from rating curve extended below 260 ft^3/s; minimum daily, 285 ft^3/s Oct. 4, 5, 1958, caused by filling of North Fork dam forebay.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1430	*18,100	*8.15	Feb. 1	1230	16,500	7.73

Minimum discharge, 594 ft^3/s Aug. 19-24, Sept. 6-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1530	2280	4360	3100	13900	2360	2020	2700	2140	858	710	612
2	1350	1830	3670	3590	10400	2720	2200	2540	1800	865	701	623
3	1270	1530	3170	3590	7750	4190	2360	2660	1640	845	726	637
4	1200	1240	2810	3710	5870	5050	2430	2290	1450	839	692	615
5	1150	1210	2730	3160	4590	4520	2360	2350	1490	858	663	597
6	1130	1490	2560	2740	3890	4270	2350	2290	1350	795	673	595
7	1250	2750	2340	2450	3440	3610	2380	2270	1270	801	669	594
8	1100	2510	2290	2180	3220	3250	2900	2260	1260	765	666	616
9	784	2270	2140	1980	3050	3110	2860	2120	1230	789	700	712
10	665	2180	2060	1870	3000	3100	2860	2020	1200	865	671	658
11	722	1930	1980	1790	3030	3190	3340	1770	1130	795	660	680
12	779	1930	1980	1670	3010	3840	3160	2380	1130	765	641	674
13	861	1850	2040	1820	3680	5630	2930	2390	1070	736	673	674
14	860	1880	2440	1940	4040	6040	2760	2060	1070	742	684	708
15	714	1950	2450	1750	3940	5110	2590	1950	1040	725	686	700
16	710	2190	2280	1630	3610	4180	2710	1970	1020	736	657	713
17	753	5260	2090	1590	3660	3960	3110	1850	1000	742	693	688
18	860	4220	2010	1520	3300	4110	3370	1790	972	1020	801	667
19	792	5090	2020	1520	3130	3670	3020	1600	950	879	643	650
20	826	6670	1920	1660	2880	3310	2850	1320	972	820	594	662
21	825	9980	1870	1360	2760	3050	2790	1250	1020	860	594	683
22	831	8100	1880	1310	2610	2820	2710	1220	1060	840	594	655
23	755	7130	2880	1370	2630	2740	2780	1210	979	790	594	679
24	750	7340	2750	1780	2420	2630	2600	1260	942	810	594	666
25	733	6470	2550	2750	2260	2520	2640	1200	900	850	700	659
26	788	5860	2890	4710	2200	2450	2520	1190	858	780	656	775
27	1020	14100	2590	5690	2030	2310	2490	1190	801	760	644	708
28	1000	12300	2410	5230	1990	2210	2720	1210	865	750	617	689
29	899	8060	2430	4150	---	2060	2670	1220	858	715	601	663
30	1480	5740	2680	3480	---	1940	2590	1270	820	733	626	671
31	2220	---	2210	4450	---	1950	---	1940	---	711	632	---
TOTAL	30607	137340	76480	81540	112290	105900	81070	56740	34287	24839	20455	19923
MEAN	987	4578	2467	2630	4010	3416	2702	1830	1143	801	660	664
MAX	2220	14100	4360	5690	13900	6040	3370	2700	2140	1020	801	775
MIN	665	1210	1870	1310	1990	1940	2020	1190	801	711	594	594
AC-FT	60710	272400	151700	161700	222700	210100	160800	112500	68010	49270	40570	39520
CFSM	1.47	6.82	3.68	3.92	5.98	5.09	4.03	2.73	1.70	1.19	.98	.99
IN.	1.70	7.61	4.24	4.52	6.23	5.87	4.49	3.15	1.90	1.38	1.13	1.10

CAL YR 1986 TOTAL 1048774 MEAN 2873 MAX 36800 MIN 630 AC-FT 2080000 CFSM 4.28 IN. 58.14
WTR YR 1987 TOTAL 781471 MEAN 2141 MAX 14100 MIN 594 AC-FT 1550000 CFSM 3.19 IN. 43.32

14211500 JOHNSON CREEK AT SYCAMORE, OR

LOCATION.--Lat 45°28'40", long 122°30'24", in lot 2, SW 1/4 sec.13, T.1 S., R.2 E., Multnomah County, Hydrologic Unit 17090012, on right bank 0.3 mi southwest of Sycamore station, 2.5 mi east of city limits of Portland, and at mile 10.2.

DRAINAGE AREA.--26.5 mi^2.

PERIOD OF RECORD.--July 1940 to current year.

REVISED RECORDS.--WSP 1318: 1941(M). WDR OR-75-1: 1974. WDR OR-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 228.47 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except for those below 10 ft^3/s, which are poor. Slight diurnal fluctuation at low flow caused by recreational ponds upstream. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--47 years, 54.4 ft^3/s, 27.88 in/yr, 39,410 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,620 ft^3/s Dec. 22, 1964, gage height, 14.68 ft; minimum discharge, 0.08 ft^3/s Aug. 21, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 1	2030	533	8.22	Feb. 1	0700	*1,340	*12.10

Minimum discharge, 0.34 ft^3/s Aug. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	6.4	55	241	931	39	21	17	5.9	1.9	1.3	.93
2	4.1	5.6	41	252	401	67	18	14	5.0	1.8	2.3	1.0
3	3.3	9.9	32	162	225	267	25	14	4.7	1.8	1.1	1.3
4	2.8	4.2	26	114	143	220	18	9.1	4.2	2.0	1.0	1.4
5	2.3	3.7	30	78	101	145	17	8.7	3.9	2.7	1.2	1.0
6	2.1	4.4	31	56	75	124	18	8.2	3.8	2.4	1.7	.93
7	2.1	21	23	44	62	92	17	7.3	3.6	2.2	1.1	1.0
8	2.1	12	19	35	60	69	21	6.9	8.5	1.8	.97	.94
9	2.0	14	16	29	41	77	16	6.3	2.9	1.8	1.0	1.3
10	2.7	9.7	15	24	36	97	37	7.4	2.5	2.2	5.9	1.7
11	3.8	7.2	15	22	33	102	53	8.0	2.4	1.8	.85	1.5
12	4.9	6.3	17	58	31	216	53	29	2.4	1.7	1.2	1.6
13	1.6	6.8	40	74	62	191	46	10	2.3	1.5	5.4	1.6
14	1.6	9.2	56	85	91	237	31	9.1	2.3	1.5	2.3	3.3
15	2.0	7.2	41	53	90	169	26	7.8	2.3	1.3	4.0	3.0
16	2.5	13	34	42	92	113	22	6.6	2.2	1.3	9.2	1.5
17	2.3	50	26	33	80	102	80	5.9	2.1	1.7	1.4	1.3
18	3.3	34	22	29	100	107	112	5.7	2.1	14	1.3	1.1
19	1.9	37	27	26	74	150	82	4.9	2.0	4.4	1.2	1.1
20	2.2	87	19	22	60	154	58	4.6	2.2	2.5	1.0	1.0
21	2.5	83	17	20	50	96	42	4.3	6.3	2.1	1.1	.95
22	3.0	69	25	18	61	69	33	4.0	6.8	2.1	2.5	.93
23	3.9	68	31	28	52	96	27	3.9	3.0	1.9	1.1	.94
24	4.1	142	33	92	41	71	22	3.7	2.7	2.0	1.1	1.0
25	6.0	88	40	156	37	56	19	3.6	2.4	1.8	.92	1.3
26	14	115	101	171	30	47	16	3.8	2.2	1.6	1.0	8.9
27	8.9	174	60	175	27	40	14	3.8	1.9	1.6	1.2	1.9
28	5.5	322	51	201	25	35	12	3.6	6.7	1.6	1.1	1.7
29	6.0	146	122	151	---	29	13	3.4	2.0	1.4	.90	1.6
30	15	80	83	107	---	26	12	9.8	2.0	1.4	1.0	1.4
31	8.5	---	62	385	---	23	---	10	---	1.3	.97	---
TOTAL	132.2	1635.6	1210	2983	3111	3326	981	244.4	103.3	71.1	58.31	49.12
MEAN	4.26	54.5	39.0	96.2	111	107	32.7	7.88	3.44	2.29	1.88	1.64
MAX	15	322	122	385	931	267	112	29	8.5	14	9.2	8.9
MIN	1.6	3.7	15	18	25	23	12	3.4	1.9	1.3	.85	.93
AC-FT	262	3240	2400	5920	6170	6600	1950	485	205	141	116	97
CFSM	.16	2.06	1.47	3.63	4.19	4.05	1.23	.30	.13	.09	.07	.06
IN.	.19	2.30	1.70	4.19	4.37	4.67	1.38	.34	.15	.10	.08	.07

CAL YR 1986 TOTAL 16118.1 MEAN 44.2 MAX 1030 MIN 1.3 AC-FT 31970 CFSM 1.67 IN. 22.63
WTR YR 1987 TOTAL 13905.03 MEAN 38.1 MAX 931 MIN .85 AC-FT 27580 CFSM 1.44 IN. 19.52

14211720 WILLAMETTE RIVER AT PORTLAND, OR
(National stream quality accounting network station)

LOCATION.--Lat 45°31'07", long 122°40'00", in NW 1/4 NE 1/4 sec.3, T.1 S., R.1 E., Multnomah County, Hydrologic Unit 17090012, in pier at east end of drawspan, on upstream side of Morrison Bridge, in Portland, and at mile 12.8.

DRAINAGE AREA.--11,100 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year. Gage-height records collected in this vicinity since 1879 are in reports of the National Weather Service.

GAGE.--Acoustic velocity meter (AVM) with water-stage and velocity-index recorder. Datum of gage is 1.55 ft above National Geodetic Vertical Datum of 1929 (levels by National Weather Service).

REMARKS.--Daily discharges estimated by flow routing for entire year. Water-discharge records fair above 50,000 ft^3/s, poor below. Flow regulated by many reservoirs upstream. Many diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--15 years, 33,310 ft^3/s, 24,130,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 283,000 ft^3/s Jan. 18, 1974; maximum gage height, 23.84 ft Jan. 18, 1974; minimum daily discharge, 4,200 ft^3/s July 10, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 7, 1894, and June 1, 1948, reached stages of 33.0 ft and 30.0 ft, respectively, from information by National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 164,000 ft^3/s Feb. 2; maximum gage height, 11.70 ft Feb. 2; minimum daily discharge, 6,700 ft^3/s Aug. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21200	25000	103000	52100	137000	23500	20300	15100	12700	7230	7020	7520
2	20100	23000	93900	72600	164000	25900	19800	15400	12400	7250	7020	7460
3	18600	20400	82400	80100	150000	39400	19400	16800	11100	7290	7040	7450
4	17000	18700	67900	85800	131000	65500	19300	16000	10100	7350	6900	7510
5	15500	18700	55200	80300	110000	63500	18700	15400	9650	7580	6740	7510
6	15200	19700	49100	70200	91800	53100	18300	14700	9310	7650	6700	7500
7	15000	21900	45100	63300	74800	45400	18300	14000	9070	7540	6720	7500
8	14400	24200	42500	54300	60300	40700	19500	13500	8840	7350	6730	7560
9	14000	24200	36400	46700	53600	39200	21400	12900	8600	7290	6770	7900
10	13700	24600	31100	40200	48600	47900	21300	12200	8350	7480	6730	8160
11	13700	25600	28300	35000	41400	50800	23500	11700	8010	7370	6710	8270
12	13600	25500	27800	33600	37600	56400	24600	12800	8050	7270	6750	8580
13	13700	23600	28700	37600	38200	70800	22400	13400	8010	7130	6860	9020
14	13900	23300	33100	40100	47900	72200	20400	12900	7940	6960	7010	9230
15	14700	23200	38400	39400	52600	69400	19100	12400	7960	6760	7340	9460
16	15200	24000	36100	35500	53300	61200	18300	11800	7920	6750	7540	9490
17	15100	31000	32400	31900	54500	54400	18800	11400	7950	6850	7610	9430
18	14900	34400	29900	27700	54200	52900	20800	11000	7940	8100	7770	9100
19	14900	40200	27200	25900	48900	52700	20400	10500	7820	10300	7450	8970
20	14800	46800	25500	24300	43100	49500	19100	9930	7720	10800	7470	8920
21	14600	67900	24100	22300	38600	45000	18100	9520	7970	9110	7470	8880
22	14900	80900	23300	20700	35300	40900	17400	9400	8410	8410	7500	8830
23	14900	90300	32100	20500	33700	38900	17200	9180	8310	8150	7520	8340
24	14300	93900	35200	25100	31600	37500	16200	9210	7920	8110	7560	8880
25	14700	97000	35200	44500	28500	33000	16100	9450	7570	7750	7650	9130
26	15300	90400	38900	68100	26300	30100	15400	9290	7430	7570	7530	9440
27	16800	112000	39200	86200	24500	27900	15100	9240	7270	7680	7470	9430
28	17100	131000	36800	92500	23400	25500	15100	9410	7310	7620	7450	9390
29	16300	133000	41200	92300	---	23700	14900	9110	7340	7330	7450	9260
30	17400	122000	51600	83300	---	22300	14500	9370	7260	7150	7520	9140
31	21800	---	48900	80800	---	21300	---	11300	---	7050	7580	---
TOTAL	487300	1536400	1320500	1612900	1734700	1380500	563700	368310	256230	238230	223580	257760
MEAN	15720	51210	42600	52030	61950	44530	18790	11880	8541	7685	7212	8592
MAX	21800	133000	103000	92500	164000	72200	24600	16800	12700	10800	7770	9490
MIN	13600	18700	23300	20500	23400	21300	14500	9110	7260	6750	6700	7450
AC-FT	966600	3047000	2619000	3199000	3441000	2738000	1118000	730500	508200	472500	443500	511300

CAL YR 1986 TOTAL 11819430 MEAN 32380 MAX 213000 MIN 7220 AC-FT 23440000
WTR YR 1987 TOTAL 9980110 MEAN 27340 MAX 164000 MIN 6700 AC-FT 19800000

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1975 to September 1981.
WATER TEMPERATURE: November 1975 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARB (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
NOV 20...	1235	46800	57	7.2	9.5	11.7	103	M1	K500	18	0	4.7
JAN 28...	1100	92500	64	7.2	6.5	13	105	590	K240	22	3	5.6
MAR 19...	1115	52700	65	7.4	8.5	12	103	230	76	24	1	6.3
MAY 13...	1150	13400	82	7.7	20.0	9.2	101	K50	K14	27	0	6.9
JUL 28...	1030	7620	87	7.9	21.0	8.2	92	120	K12	29	0	7.5
SEP 14...	1115	9230	78	7.1	18.5	7.2	77	K4400	K16	24	0	6.0

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS IT FIELD (MG/L AS CACO3)	BICARBONATE IT-FLD (MG/L AS HCO3)	CARBONATE IT-FLD (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 20...	1.5	3.5	0.8	21	26	0	4.6	2.7	<0.1	0.02	0.2	0.2
JAN 28...	1.9	3.7	0.9	20	23	0	6.4	4.1	<0.1	0.05	--	1.2
MAR 19...	2.1	4.0	0.7	24	28	0	4.5	3.1	<0.1	0.05	0.6	0.5
MAY 13...	2.4	5.9	1.0	--	--	--	4.6	5.3	<0.1	0.07	0.3	0.5
JUL 28...	2.5	7.2	1.1	30	36	0	6.2	6.2	0.1	0.08	0.4	1.1
SEP 14...	2.3	7.5	1.0	30	36	0	6.8	5.3	0.1	0.10	0.2	1.0

DATE	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER DAY)	TURBIDITY (NTU)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 20...	0.03	0.04	0.06	14	40	46	5050	7.5	15	1900	71
JAN 28...	0.04	0.05	0.12	14	102	52	25500	31	--	--	--
MAR 19...	0.04	0.04	0.08	16	53	54	7540	6.5	27	3840	--
MAY 13...	0.06	0.05	0.08	14	59	60	2130	2.2	27	977	--
JUL 28...	0.07	0.09	0.12	16	66	67	1360	2.3	--	--	--
SEP 14...	0.07	0.08	0.12	16	51	64	1270	1.7	23	573	95

M - Presence of material verified but not quantified.
K - Results based on colony count outside acceptable range (non-ideal colony count).

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 20...	190	<1	5	1	<1	<1	<3	5	300	<5
JAN 28...	--	--	--	--	--	--	--	--	--	--
MAR 19...	100	<1	8	<0.5	<1	<1	<3	6	130	<5
MAY 13...	<10	<1	7	<0.5	<1	<1	<3	3	32	<5
JUL 28...	--	--	--	--	--	--	--	--	--	--
SEP 14...	<10	<1	5	0.7	6	<1	<3	5	34	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 20...	<4	22	0.1	<10	1	<1	<1	30	<6	20
JAN 28...	--	--	--	--	--	--	--	--	--	--
MAR 19...	<4	12	<0.1	<10	<1	<1	1	39	<6	15
MAY 13...	<4	3	<0.1	<10	<1	<1	<1	43	<6	10
JUL 28...	--	--	--	--	--	--	--	--	--	--
SEP 14...	<4	5	0.3	<10	<1	<1	<1	39	<6	13

DATE	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
NOV 20...	--	--	--	--	--	--	--	--
JAN 28...	<0.4	0.9	0.4	<0.4	0.9	0.9	[illegible]	--
MAR 19...	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--
JUL 28...	<0.4	<0.4	0.7	0.6	<0.4	<0.4	0.03	<0.01
SEP 14...	--	--	--	--	--	--	--	--

14245150 COWLITZ RIVER AT LONGVIEW, WA

LOCATION.--Lat 46°06'13", long 122°53'30", in NE 1/4 SE 1/4 sec.11, T.7 N., R.2 W., Cowlitz County, Hydrologic Unit 17080005, near left bank on downstream side of railroad bridge, 0.3 mi downstream from Coweman River, 3.2 mi southeast of Longview City Hall, and at mile 1.0.

DRAINAGE AREA.--2,480 mi^2, at mouth, 1.0 mi downstream.

PERIOD OF RECORD.--May 1984 to current year (gage heights only). Maximum and minimum gage heights only October 1985 to September 1986.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Reference to Columbia River Datum in WDR-OR-84-2, WDR-OR-85-2, WDR-WA-84-1, and WDR-WA-85-1 is incorrect.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 11.53 ft Mar. 10, 1986; minimum, 2.12 ft Aug. 26, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 11.47 ft Feb. 1; minimum, 2.57 ft Sept. 3, 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5.74	3.93	7.36	5.15	9.68	7.20	10.00	6.68	11.47	7.90	7.63	4.93
2	5.88	3.86	7.25	4.95	9.68	7.12	9.60	7.06	10.90	9.27	8.08	5.61
3	6.12	3.83	7.37	4.90	9.39	6.99	9.76	7.16	10.70	8.75	9.02	6.50
4	6.01	3.80	7.37	4.82	9.16	6.80	8.83	7.05	9.78	7.86	9.80	7.43
5	5.90	3.80	7.35	4.80	8.86	6.66	8.29	6.48	8.72	7.05	8.98	6.86
6	6.15	3.79	6.99	4.81	7.72	6.49	7.76	6.28	7.84	6.57	8.20	6.64
7	6.65	3.79	6.73	4.84	7.10	5.92	7.50	6.09	7.40	6.24	7.20	6.22
8	6.56	3.81	5.88	5.04	6.81	5.22	7.35	5.97	7.03	5.96	6.71	5.83
9	5.90	3.79	5.60	4.95	6.55	4.81	7.04	5.79	7.04	5.81	6.54	5.69
10	---	---	5.68	4.82	6.79	5.02	7.16	5.67	7.24	5.67	7.19	6.16
11	5.07	3.73	6.15	4.78	7.04	5.18	7.36	5.63	7.57	5.67	7.54	6.19
12	5.31	3.75	6.14	4.85	7.28	5.30	8.05	5.81	7.79	5.59	8.10	6.41
13	5.24	3.73	6.64	4.84	7.80	5.65	7.81	6.22	8.28	5.60	8.45	6.70
14	5.64	3.73	7.02	4.86	8.25	5.82	7.95	6.24	8.11	5.87	8.84	6.85
15	6.30	3.78	6.96	4.84	8.29	5.99	7.58	6.03	8.43	5.93	8.68	6.69
16	6.60	3.79	7.14	4.86	7.98	6.04	7.55	5.86	8.03	5.91	8.55	6.63
17	6.73	3.83	7.43	5.05	7.78	6.02	7.05	5.07	7.75	6.12	8.83	6.59
18	6.52	3.81	8.42	5.40	7.78	5.97	6.87	5.54	7.84	5.99	8.75	6.63
19	6.15	3.80	8.03	5.75	7.66	5.88	6.53	5.45	7.44	5.81	8.74	6.58
20	6.53	3.80	8.30	6.02	7.01	5.49	6.54	5.36	7.40	5.67	8.53	6.55
21	6.55	4.06	7.85	6.24	6.85	5.31	6.58	5.29	7.03	5.36	8.00	6.33
22	6.36	4.39	8.58	6.88	7.05	5.45	6.74	5.22	6.76	5.24	7.36	6.08
23	5.91	4.45	10.13	7.15	6.91	5.44	7.19	5.24	6.67	5.23	7.18	5.93
24	5.49	4.46	11.40	9.58	6.93	5.45	8.08	5.41	6.98	5.06	6.63	5.68
25	5.29	4.47	10.08	7.98	6.82	5.50	7.90	5.64	7.26	4.96	6.63	5.51
26	5.45	4.53	8.71	7.59	7.58	5.82	8.12	5.75	7.54	4.90	6.70	5.42
27	5.74	4.93	9.06	7.61	7.92	5.94	9.38	6.40	7.67	4.86	6.81	5.25
28	5.67	4.94	9.48	7.52	8.09	6.11	10.16	6.73	7.61	4.86	6.78	4.51
29	6.02	4.77	9.50	7.01	9.29	6.30	10.06	7.07	---	---	6.55	4.45
30	7.03	4.80	9.42	7.21	9.15	6.75	10.09	7.00	---	---	6.86	4.39
31	7.30	5.39	---	---	9.42	6.71	9.91	6.94	---	---	7.06	4.36
MONTH	---	---	11.40	4.78	9.68	4.81	10.16	5.22	11.47	4.86	9.80	4.36

14245150 COWLITZ RIVER AT LONGVIEW, WA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.08	4.33	7.91	5.18	---	---	5.59	2.91	4.93	2.80	5.51	2.70
2	6.92	4.30	7.76	5.14	5.71	3.94	5.21	2.85	4.90	2.78	5.33	2.60
3	6.75	4.35	7.21	4.84	5.54	3.90	5.35	3.16	5.16	2.78	5.32	2.57
4	6.14	4.30	6.91	5.00	5.85	3.89	5.39	3.59	5.44	2.81	5.35	2.59
5	5.63	4.18	6.19	4.25	5.91	3.85	5.54	3.68	5.49	2.78	5.87	2.61
6	5.20	4.16	---	---	6.11	3.84	5.72	3.66	5.59	2.71	5.81	2.60
7	5.24	4.10	---	---	6.26	3.95	5.88	3.61	6.23	2.83	6.10	2.63
8	5.47	4.41	---	---	6.67	3.97	6.05	3.61	6.68	2.86	6.06	2.66
9	5.54	4.23	---	---	7.03	3.93	6.33	3.60	6.89	2.86	6.35	2.77
10	6.35	4.40	---	---	7.15	3.84	7.04	3.65	6.81	2.78	6.38	2.84
11	6.52	4.58	---	---	7.73	4.04	7.26	3.66	6.52	2.81	6.28	2.84
12	6.57	4.57	---	---	7.97	3.80	7.09	3.63	6.57	3.01	6.13	2.86
13	6.84	4.55	---	---	7.38	3.53	6.66	3.63	6.32	2.94	5.85	2.89
14	7.47	4.58	---	---	6.98	3.50	6.47	3.63	5.99	2.86	5.56	2.80
15	7.84	4.62	---	---	6.73	3.46	6.24	3.64	5.54	2.82	4.76	2.78
16	7.64	4.43	---	---	6.14	3.41	5.91	3.62	4.91	2.73	4.60	2.70
17	7.58	4.54	---	---	5.53	3.42	5.90	3.61	4.57	2.65	4.60	2.64
18	7.44	4.58	---	---	5.67	3.40	5.65	3.68	4.77	2.61	4.69	2.59
19	6.67	4.47	---	---	5.89	3.09	5.46	3.74	4.81	2.59	4.78	2.57
20	6.11	4.38	---	---	6.18	3.11	5.67	3.69	5.07	2.59	5.12	2.58
21	5.73	4.30	---	---	6.23	3.21	5.72	3.54	5.19	2.59	5.32	2.58
22	5.42	4.22	---	---	6.12	3.08	6.16	3.60	5.44	2.59	5.42	2.60
23	5.72	4.00	---	---	5.82	2.98	5.82	3.66	5.69	2.63	5.94	2.68
24	5.98	3.97	---	---	5.64	2.92	6.10	3.68	5.62	2.62	6.31	2.87
25	6.33	3.92	---	---	5.69	2.90	6.23	3.66	5.56	2.63	6.23	2.89
26	6.45	3.92	---	---	6.03	2.92	6.15	3.54	5.42	2.63	5.99	2.82
27	6.82	3.91	---	---	5.95	2.97	5.94	3.55	5.43	2.66	5.68	2.74
28	6.92	3.97	---	---	5.85	3.31	5.98	3.47	5.59	2.68	5.40	2.65
29	7.02	4.05	---	---	5.76	3.31	5.84	3.22	5.41	2.67	5.52	2.64
30	7.48	4.38	---	---	5.89	3.14	5.41	3.12	5.27	2.61	5.54	2.62
31	---	---	---	---	---	---	5.19	2.96	5.41	2.66	---	---
MONTH	7.84	3.91	---	---	---	---	7.26	2.85	6.89	2.59	6.38	2.57

14245300 COLUMBIA RIVER AT LONGVIEW, WA

LOCATION.--Lat 46°06'22", long 122°57'14", in SE 1/4 NE 1/4 sec.8, T.7 N., R.2 W., Cowlitz County, Hydrologic Unit 17080003, on right bank, at the Port of Longview, 2,000 ft upstream from Longview Bridge, 2.1 mi downstream from Cowlitz River and at mile 66.2.

DRAINAGE AREA.--256,700 mi^2, approximately.

PERIOD OF RECORD.--November 1983 to current year (gage heights only). Gage-height records collected at site on opposite bank, at different datum, published as "at Rainier" (station 14245295) November 1971 to May 1981. Maximum and minimum gage heights only October 1985 to September 1987.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Reference to Columbia River Datum in WDR-OR-84-2, WDR-OR-85-2, WDR-WA-84-1, and WDR-WA-85-1 is incorrect.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 16.52 ft Jan. 19, 1974; minimum, 0.18 ft Aug. 18, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.12 ft Feb. 1; minimum, 0.18 ft Aug. 18.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5.60	1.25	7.16	2.18	9.13	4.39	9.63	3.53	10.12	5.26	7.40	2.50
2	5.80	1.20	7.10	1.73	9.17	4.39	9.01	4.05	9.99	7.01	7.56	2.66
3	6.08	1.52	7.27	1.77	8.86	4.28	9.04	4.06	9.78	6.84	8.55	3.30
4	6.00	1.29	7.26	1.84	8.65	3.92	8.05	4.16	8.99	5.87	8.99	4.75
5	5.89	1.01	7.31	1.85	8.21	3.90	7.58	3.78	7.94	4.57	---	---
6	6.18	.80	6.87	2.03	6.82	3.33	7.06	3.41	6.96	3.77	---	---
7	6.63	1.13	6.39	2.21	6.20	2.46	6.78	3.22	6.59	3.06	---	---
8	6.59	1.82	5.30	1.80	5.87	1.94	6.59	3.40	6.27	2.40	---	---
9	5.84	1.52	4.83	1.04	5.93	2.06	6.27	2.96	6.47	2.36	---	---
10	5.24	1.20	4.97	1.04	6.23	2.22	6.62	2.61	6.82	2.55	6.16	2.73
11	4.90	.77	5.76	1.62	6.56	2.37	6.97	2.68	7.26	2.59	6.73	2.91
12	5.20	.35	5.72	1.63	6.84	2.38	7.77	3.18	7.52	2.74	7.43	3.26
13	5.22	.77	6.43	1.84	7.36	2.55	7.23	2.95	8.13	3.07	7.82	3.67
14	5.56	1.06	6.88	2.17	7.84	2.99	7.24	2.81	7.78	3.35	8.16	3.97
15	6.29	1.66	6.82	1.93	7.80	3.12	6.93	2.82	8.23	3.34	8.06	4.21
16	6.61	1.97	7.02	2.21	7.20	2.58	6.99	2.86	7.67	3.58	7.92	4.15
17	6.75	2.07	7.19	2.32	7.02	2.51	6.44	2.62	7.24	3.27	8.43	4.08
18	6.54	1.64	8.33	2.61	7.09	2.42	6.29	2.30	7.36	3.37	8.27	4.01
19	6.16	1.42	7.67	3.65	7.12	2.63	5.78	2.18	6.98	2.99	8.24	3.95
20	6.54	1.24	7.66	3.27	6.29	2.24	5.83	2.23	7.00	2.86	8.00	3.52
21	6.43	1.78	7.10	3.52	6.09	1.69	5.96	2.20	6.63	2.48	7.46	2.87
22	6.23	1.88	6.53	4.00	6.65	1.80	6.24	2.26	6.38	2.13	6.69	2.27
23	5.67	1.40	7.06	3.77	6.15	2.51	6.88	2.61	6.26	1.89	6.55	2.05
24	5.10	1.25	7.36	5.26	6.31	2.03	7.90	3.25	6.69	1.86	5.74	1.54
25	4.74	1.33	7.01	5.19	6.11	2.13	7.62	2.80	7.04	2.12	6.01	1.53
26	4.79	1.21	7.49	4.91	6.92	2.46	7.84	3.47	7.39	2.38	5.95	1.34
27	4.91	1.38	8.10	4.72	7.28	2.42	9.11	4.26	7.54	2.35	6.08	1.74
28	4.91	1.14	8.66	5.21	7.55	2.42	9.89	4.48	7.51	2.50	6.20	1.69
29	5.72	1.21	8.84	4.68	8.90	3.48	9.71	4.59	---	---	6.17	1.68
30	6.89	2.24	8.75	4.33	8.68	3.38	9.84	4.64	---	---	6.49	1.72
31	7.00	2.45	---	---	9.01	3.51	9.50	4.63	---	---	6.78	2.21
MONTH	7.00	.35	8.84	1.04	9.17	1.69	9.89	2.18	10.12	1.86	---	---

14245300 COLUMBIA RIVER AT LONGVIEW, WA--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.96	2.07	7.70	3.79	6.14	2.01	5.55	1.29	4.88	.62	5.54	1.11
2	6.80	1.96	7.48	3.76	5.28	1.65	5.16	1.11	4.88	.76	5.35	.85
3	6.60	1.95	6.87	3.37	5.14	1.76	5.20	1.00	5.14	.70	5.37	.48
4	5.88	1.43	6.49	3.60	5.61	2.15	5.24	1.07	5.45	.78	5.54	.45
5	5.27	1.41	5.70	2.74	5.72	2.07	5.39	1.30	5.57	.59	5.90	.63
6	4.66	1.35	5.46	2.79	5.97	2.13	5.62	1.05	5.67	.55	5.90	.54
7	5.07	1.26	6.15	3.15	6.32	2.38	5.81	.90	6.28	1.14	6.20	.74
8	5.07	1.52	6.31	3.52	6.58	2.44	5.99	.79	6.73	1.26	6.14	.99
9	4.97	1.75	6.88	3.85	6.99	2.28	6.32	1.03	6.98	1.36	6.40	1.35
10	6.07	2.33	7.27	3.97	7.11	2.08	7.06	1.39	6.91	1.11	6.43	1.55
11	6.25	2.16	7.95	4.09	7.69	2.56	7.25	1.55	6.61	1.17	6.36	1.59
12	6.27	2.07	8.60	4.27	7.95	2.21	7.11	1.31	6.61	1.68	6.20	1.51
13	6.58	2.29	8.64	4.20	7.37	1.52	6.66	1.14	6.39	1.61	5.87	1.56
14	7.34	2.73	9.18	4.59	7.00	1.43	6.43	1.21	6.03	1.33	5.53	1.39
15	7.81	2.84	9.09	4.58	6.74	1.30	6.17	1.37	5.57	1.41	4.68	1.29
16	7.55	2.42	8.60	4.04	6.12	1.03	5.82	1.06	4.90	1.07	4.48	.69
17	7.50	2.42	8.03	3.95	5.44	.87	5.84	1.32	4.53	.47	4.57	.54
18	7.27	2.33	7.47	3.81	5.58	1.01	5.53	1.30	4.73	.18	4.61	.61
19	6.44	1.71	6.74	3.30	5.87	1.30	5.30	1.03	4.89	.43	4.74	.40
20	5.79	1.51	6.31	2.92	6.22	1.70	5.60	.78	5.05	.50	5.12	.60
21	5.32	1.33	6.42	2.41	6.25	1.80	5.67	.95	5.21	.38	5.36	.69
22	5.17	1.13	6.41	2.34	6.14	1.30	6.08	1.29	5.46	.54	5.44	.91
23	5.39	1.43	6.57	2.27	5.81	1.00	5.72	.80	5.71	.85	5.97	1.37
24	5.75	1.64	6.75	2.25	5.63	.45	6.03	1.07	5.67	.75	6.33	1.65
25	6.17	1.56	6.97	2.41	5.67	.81	6.16	1.04	5.59	.73	6.31	1.63
26	6.31	1.74	7.25	2.61	6.04	1.04	6.12	1.05	5.43	.77	6.05	1.42
27	6.75	1.83	7.17	2.20	5.97	.95	5.89	.78	5.43	.94	5.72	1.06
28	6.88	1.78	7.14	2.38	5.81	.80	5.81	1.06	5.59	1.07	5.44	.70
29	6.93	1.72	7.18	2.60	5.71	.85	5.79	1.26	5.47	1.12	5.51	.75
30	7.40	2.81	7.32	3.10	5.83	1.30	5.34	.93	5.30	.97	5.58	.95
31	---	---	7.26	2.90	---	---	5.11	.89	5.42	.84	---	---
MONTH	7.81	1.13	9.18	2.20	7.95	.45	7.25	.78	6.98	.18	6.43	.40

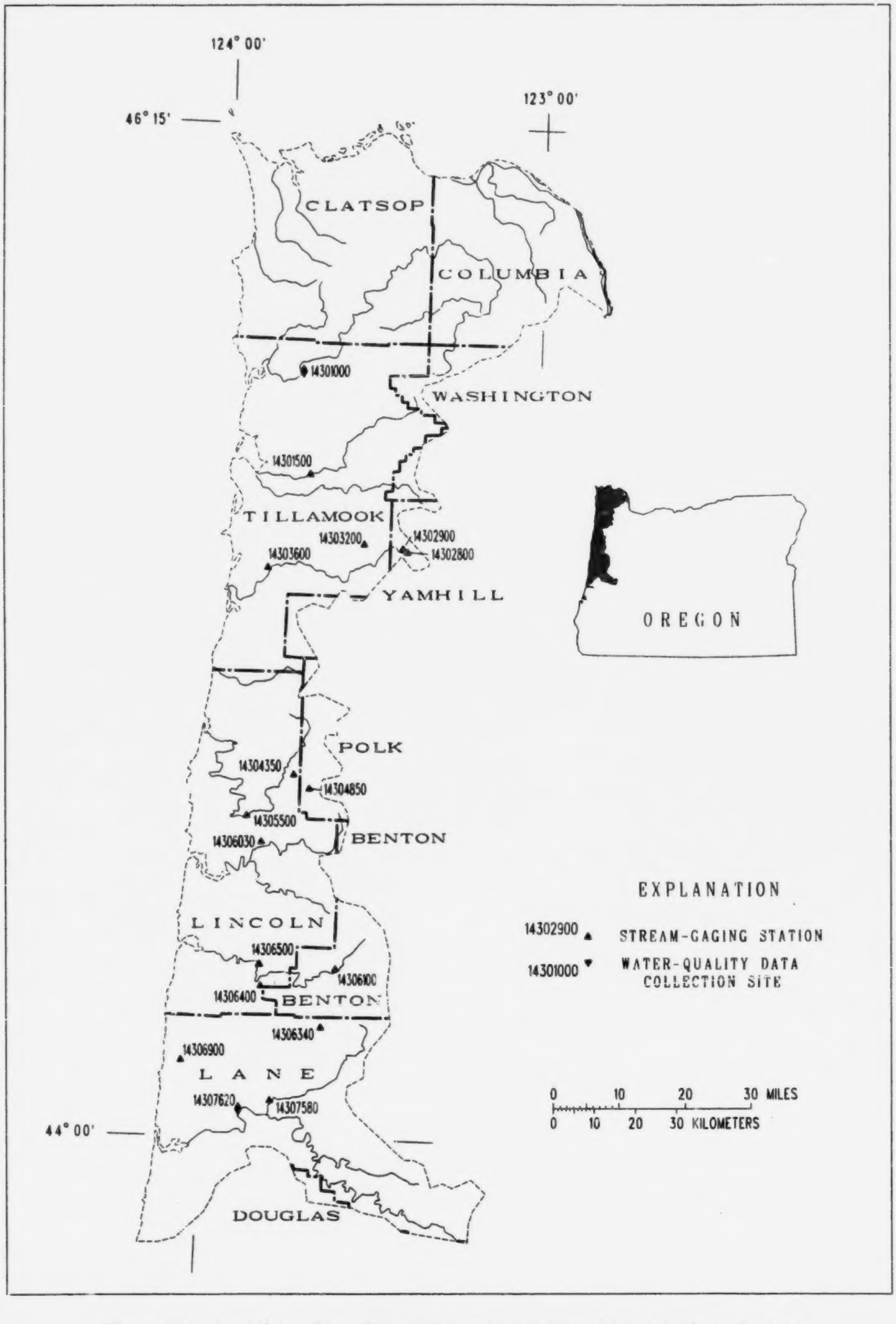

124° 00'
46° 15'
123° 00'
CLATSOP
COLUMBIA
14301000
WASHINGTON
14301500
TILLAMOOK
14303200
14302900
14303600
14302800
YAMHILL
OREGON
POLK
14304350
14304850
14305500
14306030
BENTON
EXPLANATION
14302900 ▲ STREAM-GAGING STATION
14301000 ▼ WATER-QUALITY DATA COLLECTION SITE
LINCOLN
14306500
14306100
14306400
BENTON
14306340
14306900
LANE
14307620
14307580
0 10 20 30 MILES
0 10 20 30 KILOMETERS
44° 00'
DOUGLAS

Figure 5.--Location of surface-water and water-quality stations in the Oregon Coastal Drainages north of the Siuslaw River basin.

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR
(National stream quality accounting network station)

LOCATION.--Lat 45°42'15", long 123°45'15", in NW 1/4 sec.35, T.3 N., R.9 W., Tillamook County, Hydrologic Unit 17100202, on right bank 0.2 mi upstream from Cook Creek, 2.2 mi northeast of Foss, and at mile 13.5.

DRAINAGE AREA.--667 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 32.60 ft above National Geodetic Vertical Datum of 1929 (State Highway Department bench mark). Prior to Nov. 11, 1939, nonrecording gage.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation. Several small diversions for irrigation and domestic use upstream from station.

AVERAGE DISCHARGE.--48 years, 2,700 ft^3/s, 54.97 in/yr, 1,956,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,900 ft^3/s Jan. 20, 1972, gage height, 23.11 ft; minimum discharge, 34 ft^3/s Aug. 29-31, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 19,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 24	1330	19,800	14.65	Mar. 3	1900	*31,700	*18.33
Feb. 1	0830	27,800	16.97				

Minimum discharge, 64 ft^3/s Sept. 3, 4, 7, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	2590	3680	7710	24500	3690	1460	858	1250	252	158	77
2	259	1580	2960	7960	19900	8060	1390	942	1060	252	149	73
3	229	1160	2490	8940	15000	24300	1340	988	888	250	142	70
4	204	922	2150	10100	9590	25000	1290	900	775	249	136	68
5	185	781	1980	9320	6850	19600	1240	810	703	270	133	68
6	170	716	1830	7360	5220	12000	1220	745	656	293	129	72
7	157	1050	1670	5660	4140	7920	1190	707	612	273	126	66
8	146	1050	1530	4410	3390	5980	1270	677	576	268	122	65
9	139	1030	1430	3530	2850	5050	1240	647	543	268	115	67
10	134	924	1340	2900	2490	6580	1280	621	519	282	115	67
11	125	832	1280	2490	2230	6780	1460	618	492	288	115	67
12	119	758	1250	2510	2010	9070	1640	725	472	268	112	72
13	113	700	1340	2830	2110	9870	1600	722	451	253	123	78
14	111	657	2060	4800	2760	9710	1470	719	431	227	134	91
15	111	599	2970	4960	2880	8040	1380	677	421	202	142	129
16	109	684	2880	4090	4020	6440	1310	635	412	193	152	142
17	108	1170	2480	3380	5550	5620	1380	602	405	196	144	135
18	108	1480	2160	2870	5560	5340	1560	580	396	230	137	121
19	105	2340	1910	2500	5070	4810	1620	577	381	245	130	111
20	104	6290	1710	2190	4320	4230	1530	557	370	234	123	107
21	113	7590	1630	1940	3670	3690	1430	540	409	229	116	100
22	108	8800	1990	1760	3220	3210	1340	518	455	213	109	92
23	102	10800	4290	1690	3090	2890	1260	498	412	200	103	85
24	99	17700	4780	1970	2790	2630	1170	487	384	191	99	80
25	177	13400	4520	2530	2440	2370	1100	473	350	186	94	80
26	918	9060	4810	4030	2190	2190	1020	469	323	186	93	92
27	1580	9150	4410	6030	2020	2050	960	466	297	187	89	90
28	1240	7570	3860	6550	1910	1910	903	478	287	182	86	86
29	885	6010	6590	7070	---	1770	851	473	273	175	88	82
30	2240	4620	9410	6800	---	1640	829	642	262	169	83	78
31	4200	---	8270	8430	---	1540	---	1250	---	166	79	---
TOTAL	14689	122013	95660	149310	151770	213980	38733	20601	15265	7077	3676	2611
MEAN	474	4067	3086	4816	5420	6903	1291	665	509	228	119	87.0
MAX	4200	17700	9410	10100	24500	25000	1640	1250	1250	293	158	142
MIN	99	599	1250	1690	1910	1540	829	466	262	166	79	65
AC-FT	29140	242000	189700	296200	301000	424400	76830	40860	30280	14040	7290	5180
CFSM	.71	6.10	4.63	7.22	8.13	10.3	1.94	1.00	.76	.34	.18	.13
IN.	.82	6.80	5.34	8.33	8.46	11.93	2.16	1.15	.85	.39	.21	.15

CAL YR 1986 TOTAL 808242 MEAN 2214 MAX 22200 MIN 67 AC-FT 1603000 CFSM 3.32 IN. 45.08
WTR YR 1987 TOTAL 835385 MEAN 2289 MAX 25000 MIN 65 AC-FT 1657000 CFSM 3.43 IN. 46.59

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1980 to September 1981.
WATER TEMPERATURE: December 1974 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 26...	1045	9240	51	7.2	8.0	11.6	102	130	82	14	3	3.9
FEB 25...	1405	2400	53	7.6	5.5	12.9	--	K5	K60	15	0	4.3
MAY 27...	1400	468	67	7.5	13.5	8.3	113	K1	K2	20	0	5.7
SEP 02...	1120	70	86	7.6	21.0	10.1	98	K8	140	28	0	7.7

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS IT FIELD (MG/L AS CACO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
NOV 26...	1.1	4.2	0.8	12	14	0	6.2	4.3	<0.1	<0.01	1.0	0.4
FEB 25...	1.1	4.5	0.6	16	19	0	3.8	4.2	<0.1	0.01	0.6	1.1
MAY 27...	1.5	5.6	0.8	24	30	0	4.6	5.0	<0.1	0.01	0.2	0.3
SEP 02...	2.0	7.2	1.0	30	35	0	4.8	6.3	0.1	0.04	0.1	0.4

DATE	PHOS-PHOROUS ORTHO-DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 26...	<0.01	0.01	0.06	14	44	46	1100	16	59	1470	71
FEB 25...	<0.01	0.01	0.01	15	38	46	246	2.1	6	39	--
MAY 27	<0.01	0.01	0.02	15	66	54	72.0	1.2	14	18	--
SEP 02...	<0.01	<0.01	0.01	14	63	62	11.9	2.0	12	2.3	90

K - Results based on colony count outside acceptable range (non-ideal colony count).

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM. DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV 26...	--	<1	6	<0.5	1	<1	<3	2	--	5
FEB 25...	30	<1	3	<0.5	<1	<1	<3	5	55	<5
MAY 27...	20	7	5	<0.5	<1	<1	<3	3	150	<5
SEP 02...	<10	<1	6	<0.5	1	<1	<3	3	49	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 26...	<4	--	0.2	<10	1	<1	<1	27	<6	16
FEB 25...	<4	5	0.1	<10	<1	<1	<1	28	<6	5
MAY 27...	<4	2	0.1	<10	2	<1	<1	39	<6	9
SEP 02...	<4	1	0.1	<10	3	<1	<1	52	<6	11

14301500 WILSON RIVER NEAR TILLAMOOK, OR

LOCATION.--Lat 45°29'05", long 123°41'20", in SW 1/4 SE 1/4 sec.8, T.1 S., R.8 W., Tillamook County, Hydrologic Unit 17100203, on right bank 0.2 mi upstream from Negro Jack Creek, 8.0 mi east of Tillamook, and at mile 11.4.

DRAINAGE AREA.--161 mi^2, at cableway, 2.0 mi downstream, where all discharge measurements are made.

PERIOD OF RECORD.--October 1914 to September 1915, August to November 1916, July 1931 to current year. Prior to January 1915 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1398: 1953. WSP 1738: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 71.89 ft above National Geodetic Vertical Datum of 1929. Dec. 18, 1914, to Nov. 4, 1916, nonrecording gage at site 2.8 mi downstream at different datum. July 30, 1931, to Sept. 30, 1938, nonrecording gage at site 2.82 mi downstream at datum 28.83 ft lower. Oct. 1, 1938, to Oct. 17, 1968, water-stage recorder at site 2.1 mi downstream at datum 29.76 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-28. Records good. No regulation. Small diversions for domestic use upstream from station.

AVERAGE DISCHARGE.--57 years (water years 1915, 1932-87), 1,186 ft^3/s, 100.04 in/yr, 859,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft^3/s Jan. 20, 1972, gage height, 16.91 ft; maximum gage height, 20.26 ft Dec. 22, 1964 (site and datum then in use); minimum discharge, 32 ft^3/s Sept. 5, 1973, but may have been less for short period following a landslide Jan. 31, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1916 reached a stage of 20.8 ft, from floodmark, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 12,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 24	0330	13,100	12.71	Mar. 3	1900	16,500	13.68
Feb. 1	0630	*18,900	*14.27				

Minimum discharge, 49 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	955	1380	2750	13800	2120	558	418	962	145	105	61
2	135	606	1150	2780	5900	4460	521	660	671	145	101	59
3	130	444	983	3020	3500	11600	502	778	533	145	98	59
4	120	357	858	3440	2480	8210	481	668	453	144	95	59
5	115	312	798	2920	1890	3990	453	573	408	185	93	58
6	110	288	712	2180	1540	2700	456	504	374	167	92	58
7	100	462	637	1700	1280	2070	449	447	340	153	90	56
8	100	428	585	1390	1120	1670	576	408	315	154	89	56
9	95	369	540	1170	986	1640	535	374	297	147	87	55
10	90	328	506	1010	875	2750	576	352	281	147	87	55
11	90	303	483	897	802	2590	770	342	266	143	88	55
12	85	279	470	1040	725	4530	908	387	252	134	89	56
13	85	263	589	1330	969	4030	817	344	242	128	90	57
14	85	258	1020	2000	1360	3840	747	327	232	123	93	62
15	80	237	1200	1550	1370	3000	636	310	224	118	93	80
16	80	431	964	1310	2250	2220	583	292	220	117	91	73
17	80	1060	803	1130	2640	2080	660	278	215	121	86	65
18	80	1270	699	995	2030	1920	754	270	205	207	82	60
19	80	2250	642	881	1640	1700	740	264	196	182	80	58
20	75	4770	575	786	1390	1510	703	253	194	148	78	56
21	75	4500	586	713	1190	1310	636	242	240	133	75	54
22	75	4250	917	663	1100	1160	582	233	224	124	74	53
23	75	6650	2220	690	1100	1110	537	226	201	124	73	53
24	70	10900	1900	1110	979	989	495	219	186	121	71	52
25	280	4960	1670	1720	879	943	466	214	177	118	70	52
26	640	3380	1890	2170	786	897	432	212	167	118	68	56
27	750	5150	1610	2670	730	811	405	210	159	118	67	55
28	470	3200	1370	2550	758	741	395	220	154	115	67	54
29	329	2220	2450	2720	---	686	363	210	152	110	64	51
30	888	1690	3120	2190	---	634	372	422	149	107	64	49
31	1880	---	2250	4090	---	588	---	1260	---	107	62	---
TOTAL	7487	62570	35577	55605	56069	78499	17108	11917	8689	4248	2562	1727
MEAN	242	2086	1148	1794	2002	2532	570	384	290	137	82.6	57.6
MAX	1880	10900	3120	4090	13800	11600	908	1260	962	207	105	80
MIN	70	237	470	663	725	588	363	210	149	107	62	49
AC-FT	14850	124100	70570	110300	111200	155700	33930	23640	17230	8430	5080	3430
CFSM	1.50	13.0	7.13	11.1	12.4	15.7	3.54	2.39	1.80	.85	.51	.36
IN.	1.73	14.46	8.22	12.85	12.96	18.14	3.95	2.75	2.01	.98	.59	.40

CAL YR 1986 TOTAL 331047 MEAN 907 MAX 10900 MIN 49 AC-FT 656600 CFSM 5.63 IN. 76.49
WTR YR 1987 TOTAL 342058 MEAN 937 MAX 13800 MIN 49 AC-FT 678500 CFSM 5.82 IN. 79.03

14302800 MCGUIRE LAKE NEAR FAIRDALE, OR

LOCATION.--Lat 45°18'30", long 123°24'30", in NW 1/4 SE 1/4 sec.15, T.3 S., R.6 W., Yamhill County, Hydrologic Unit 17100203, on control tower in reservoir on Nestucca River, 0.3 mi upstream from Walker Creek, and 5.0 mi southwest of Fairdale.

DRAINAGE AREA.--2.85 mi^2.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam with ungated spillway. Capacity of resevoir is 3,840 acre-ft between elevations 1,810.0 ft and 1,865.5 ft. Dead storage negligible. Under normal operation, reservoir is filled in the spring (April or May) and drained when fall rains start. There is no planned storage during winter months; however, during periods of heavy runoff, inflow may be greater than capacity of outlet tunnel and there may be temporary storage. Water is used during summer months for municipal supply of city of McMinnville.

COOPERATION.--Elevation and capacity table furnished by city of McMinnville, Water and Light Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,890 acre-ft Mar. 12 1972, Feb. 19, Mar. 28, 1974, elevation, 1,865.8 ft; no contents most of time during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,770 acre-ft Mar. 1 to June 24, elevation, 1,865.0 ft; reservoir empty Dec. 25-31.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,848.6	1,880	-
Oct. 31	1,846.2	1,680	-200
Nov. 30	1,850.7	2,080	+400
Dec. 31	1,806.0	0	-2,080
CAL YR 1986	-	-	-976
Jan. 31	1,846.9	1,730	+1,730
Feb. 28	1,864.7	3,730	+2,000
Mar. 31	1,865.0	3,770	+40
Apr. 30	1,865.0	3,770	0
May 31	1,865.0	3,770	0
June 30	1,864.4	3,690	-80
July 31	1,861.3	3,260	-430
Aug. 31	1,858.1	2,860	-400
Sept.30	1,854.8	2,490	-370
WTR YR 1987	-	-	+610

14302900 NESTUCCA RIVER NEAR FAIRDALE, OR

LOCATION.--Lat 45°18'40", long 123°25'05", in SW 1/4 NW 1/4 sec.15, T.3 S., R.6 W., Yamhill County, Hydrologic Unit 17100203, on right bank 100 ft upstream from former Meadow Lake, 0.4 mi downstream from Walker Creek, 5.3 mi southwest of Fairdale, and at mile 49.3.

DRAINAGE AREA.--6.18 mi^2.

PERIOD OF RECORD.--June 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,778.99 ft above National Geodetic Vertical Datum of 1929 (levels by city of McMinnville).

REMARKS.--No estimated daily discharges. Records good except those for March through May, which are fair. Flow regulated since March 1969 by McGuire Lake about 1 mi upstream from gage (station 14302800); during winter months lake is empty except when inflow exceeds capacity of outlet tunnel.

AVERAGE DISCHARGE.--27 years (water years 1961-87), 32.1 ft^3/s, 70.54 in/yr, 23,260 acre-ft/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 876 ft^3/s Dec. 22, 1964, gage height, 10.43 ft; minimum discharge, 0.41 ft^3/s Sept. 11, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 467 ft^3/s Mar. 3, gage height, 6.83 ft; minimum discharge, 0.62 ft^3/s Oct. 23; minimum daily, 0.80 ft^3/s Sept. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	21	64	69	212	38	19	17	15	1.6	1.5	1.1
2	2.0	17	66	55	122	74	18	22	10	1.7	1.4	1.1
3	1.8	15	62	69	69	331	18	18	7.7	1.9	1.3	1.2
4	1.6	14	59	67	47	274	17	14	6.4	1.9	1.3	1.2
5	1.5	13	58	51	35	160	17	12	6.0	2.3	1.3	1.2
6	1.5	13	56	39	28	103	17	10	5.6	2.0	1.4	1.1
7	1.4	17	54	31	23	72	17	8.9	5.0	1.9	1.4	1.2
8	1.3	15	53	27	20	57	19	8.1	4.8	1.8	1.3	1.2
9	1.3	14	61	23	18	70	17	7.2	4.5	1.8	1.3	1.3
10	1.3	13	67	20	16	101	17	6.8	4.2	1.8	1.4	1.3
11	1.4	13	66	19	15	121	19	6.6	4.0	1.7	1.5	1.1
12	1.4	12	65	24	15	206	19	7.5	3.9	1.5	1.4	1.1
13	1.4	12	71	25	32	168	17	7.1	3.7	1.4	2.2	1.0
14	1.3	14	84	32	33	130	16	6.9	3.6	1.3	1.8	1.1
15	1.5	15	79	26	40	88	15	6.5	3.3	1.2	1.7	1.3
16	1.3	18	82	23	53	68	14	6.0	3.2	1.4	1.7	1.1
17	1.4	25	84	19	50	66	18	5.8	3.4	1.8	1.5	1.0
18	1.3	28	78	17	41	55	18	5.6	3.3	6.1	1.3	.94
19	1.4	32	73	15	33	46	16	5.8	3.2	3.5	1.3	.94
20	1.5	60	67	14	28	40	14	7.4	3.4	2.4	1.3	.83
21	1.4	66	62	12	24	35	14	6.7	4.3	2.1	1.3	.83
22	1.7	78	79	12	23	32	13	5.8	4.1	2.1	1.3	.90
23	1.2	110	79	15	22	41	12	5.3	3.5	2.1	1.2	.81
24	1.3	137	68	37	21	33	12	5.1	2.2	2.0	1.1	.80
25	6.8	94	55	49	20	30	11	4.9	1.9	2.0	1.1	.89
26	13	92	48	53	18	28	10	4.9	1.7	1.9	1.1	.95
27	11	123	37	48	18	26	10	4.9	1.6	1.9	1.2	.89
28	6.7	104	38	54	19	23	10	5.2	1.6	1.8	1.3	.88
29	8.6	78	111	47	---	22	9.9	5.0	1.5	1.8	1.2	.89
30	27	63	96	38	---	21	12	12	1.6	1.6	1.1	.88
31	34	---	55	93	---	20	---	20	---	1.6	1.1	---
TOTAL	142.5	1326	2077	1123	1095	2579	455.9	269.0	128.2	61.9	42.3	31.03
MEAN	4.60	44.2	67.0	36.2	39.1	83.2	15.2	8.68	4.27	2.00	1.36	1.03
MAX	34	137	111	93	212	331	19	22	15	6.1	2.2	1.3
MIN	1.2	12	37	12	15	20	9.9	4.9	1.5	1.2	1.1	.80
AC-FT	283	2630	4120	2230	2170	5120	904	534	254	123	84	62
MEAN†	6.18	50.9	33.2	64.4	75.1	83.9	15.4	8.68	4.77	2.16	1.20	0.45
CFSM†	1.00	8.24	5.37	10.4	12.2	13.6	2.49	1.40	0.77	0.35	0.19	0.07
IN.†	1.15	9.20	6.19	12.02	12.65	15.66	2.79	1.62	0.86	0.40	0.22	0.08
AC-FT†	380	3030	2040	3960	4170	5160	918	534	284	133	74	27

CAL YR 1986 TOTAL 9427.56 MEAN 25.8 MAX 238 MIN .59 AC-FT 18700 MEAN† 27.3 CFSM† 4.42 IN.† 59.91 AC-FT† 19740
WTR YR 1987 TOTAL 9330.83 MEAN 25.6 MAX 331 MIN .80 AC-FT 18510 MEAN† 28.6 CFSM† 4.63 IN.† 62.84 AC-FT† 20710

† Adjusted for storage and diversion by McGuire Lake.

14303200 TUCCA CREEK NEAR BLAINE, OR

LOCATION.--Lat 45°19'28", long 123°32'43", in SE 1/4 NW 1/4 sec.9, T.3 S., R.7 W., Tillamook County, Hydrologic Unit 17100203, on right bank at road bridge, 80 ft upstream from mouth, and 8 mi northeast of Blaine.

DRAINAGE AREA.--3.09 mi^2.

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those below 1.0 ft^3/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 220 ft^3/s Feb. 23, 1986, gage height, 3.35 ft; minimum discharge, 0.46 ft^3/s Sept. 30, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 180 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 24	0830	194	3.19	Mar. 3	1600	*216	*3.32
Feb. 1	1015	188	3.15				

Minimum discharge, 0.46 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	18	30	36	163	20	12	8.0	7.0	2.3	1.9	.86
2	2.9	13	25	37	103	34	11	9.9	5.7	2.3	1.8	.93
3	2.6	11	22	40	63	158	11	8.5	5.1	2.3	1.7	1.0
4	2.5	8.6	19	41	42	147	9.8	7.6	4.9	2.4	1.6	.98
5	2.3	7.6	17	39	31	77	9.4	7.2	4.8	2.9	1.6	.93
6	2.2	7.1	15	34	24	48	9.3	6.8	4.7	2.4	1.5	.92
7	2.0	10	14	29	20	36	9.2	6.5	4.4	2.3	1.5	.94
8	2.0	8.3	12	24	17	30	11	6.1	4.4	2.2	1.4	.94
9	1.9	7.9	11	21	15	31	8.7	5.8	4.2	2.1	1.4	.93
10	1.8	7.3	10	18	13	38	10	5.5	4.2	2.1	1.4	.92
11	1.7	7.0	9.7	17	11	39	13	5.6	4.0	1.8	1.5	.98
12	1.7	6.6	8.9	18	10	49	13	6.1	4.0	1.6	1.4	1.1
13	1.7	6.3	9.6	20	13	56	12	5.3	3.8	1.4	2.1	1.1
14	1.6	6.0	11	30	14	55	12	5.0	3.7	1.4	1.9	1.2
15	1.6	5.5	10	28	17	48	11	4.9	3.7	1.5	1.6	1.9
16	1.6	8.5	9.3	26	28	40	11	4.8	3.6	1.9	1.5	1.1
17	1.6	14	8.8	23	36	37	12	4.7	3.5	1.9	1.4	.95
18	1.6	16	8.5	20	34	33	12	4.5	3.4	6.8	1.3	.89
19	1.6	20	8.2	18	28	30	11	4.4	3.3	4.0	1.2	.81
20	1.5	45	7.8	16	24	29	10	4.4	3.4	3.0	1.2	.76
21	1.5	58	7.6	14	20	26	9.7	4.3	3.9	2.6	1.1	.74
22	1.5	56	12	13	19	24	9.3	4.2	3.5	2.4	1.1	.65
23	1.5	119	16	13	16	23	8.8	4.0	3.3	2.3	1.0	.58
24	1.5	173	18	17	14	20	8.4	4.0	3.1	4.3	.97	.67
25	2.9	105	19	22	12	19	8.0	3.8	3.0	3.1	.92	.88
26	4.8	70	20	26	11	17	7.6	3.8	2.8	2.7	.94	1.1
27	4.6	78	20	29	10	16	7.2	3.8	2.8	2.6	.93	.79
28	3.2	71	19	31	11	15	6.9	3.9	2.6	2.3	.93	.65
29	3.7	52	29	30	---	15	6.5	3.7	2.5	2.2	.94	.60
30	17	38	34	29	---	13	7.3	6.2	2.4	2.1	.96	.58
31	26	---	32	50	---	13	---	9.6	---	2.1	.90	---
TOTAL	107.7	1053.7	493.4	809	819	1236	298.1	172.9	115.7	77.3	41.59	27.38
MEAN	3.47	35.1	15.9	26.1	29.2	39.9	9.94	5.58	3.86	2.49	1.34	.91
MAX	26	173	34	50	163	158	13	9.9	7.0	6.8	2.1	1.9
MIN	1.5	5.5	7.6	13	10	13	6.5	3.7	2.4	1.4	.90	.58
AC-FT	214	2090	979	1600	1620	2450	591	343	229	153	82	54
CFSM	1.12	11.4	5.15	8.45	9.47	12.9	3.22	1.80	1.25	.81	.43	.30
IN.	1.30	12.69	5.94	9.74	9.86	14.88	3.59	2.08	1.39	.93	.50	.33

CAL YR 1986 TOTAL 5164.35 MEAN 14.1 MAX 183 MIN .76 AC-FT 10240 CFSM 4.58 IN. 62.17
WTR YR 1987 TOTAL 5251.77 MEAN 14.4 MAX 173 MIN .58 AC-FT 10420 CFSM 4.66 IN. 63.23

14303600 NESTUCCA RIVER NEAR BEAVER, OR

LOCATION.--Lat 45°16'00", long 123°50'45", in SE 1/4 NE 1/4 sec.36, T.3 S., R.10 W., Tillamook County, Hydrologic Unit 17100203, on right bank 150 ft upstream from Saling Creek, 1.2 mi southwest of Beaver, and at mile 13.5.

DRAINAGE AREA.--180 mi^2.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 43 ft, from river profile map.

REMARKS.--Estimated daily discharges: Dec. 1-23. Records good. No regulation. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--23 years, 1,068 ft^3/s, 80.57 in/yr, 773,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft^3/s Jan. 11, 1972, gage height, 22.0 ft, from floodmark; minimum discharge, 32 ft^3/s Sept. 14, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1962, reached a stage of 23.4 ft, discharge, 32,500 ft^3/s caused by failure of Meadow Lake Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 8,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	0930	9,380	11.59	Mar. 3	2000	*10,400	*12.32

Minimum discharge, 55 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	924	1810	2230	8070	1620	596	461	511	131	95	59
2	221	697	1530	2230	6590	2220	567	555	395	132	92	59
3	194	558	1320	2450	4270	6730	555	551	335	133	89	61
4	178	470	1190	2510	2870	7020	522	482	296	132	87	61
5	169	426	1070	2200	2260	3930	503	447	274	149	84	59
6	157	403	947	2000	1830	2680	499	417	265	143	83	59
7	145	814	866	1990	1540	2020	496	392	246	134	83	60
8	138	679	795	1580	1330	1660	565	372	234	133	81	62
9	134	623	733	1130	1170	1770	485	356	226	128	80	61
10	130	555	710	994	1040	2720	528	342	215	132	84	60
11	124	511	670	898	952	2530	597	341	208	127	84	62
12	121	472	654	1060	874	4030	619	407	201	118	82	65
13	120	443	718	1200	1120	3740	563	353	194	112	90	66
14	118	435	858	1800	1300	3290	527	332	192	109	104	72
15	117	403	858	1510	1330	2670	506	316	188	104	97	89
16	115	466	787	1300	1850	2170	487	300	182	106	92	82
17	115	976	741	1150	2170	2000	560	291	180	112	86	70
18	115	991	702	1020	2040	1810	611	284	174	197	81	65
19	114	1080	670	918	1750	1650	590	280	167	243	77	61
20	110	1910	631	832	1540	1520	559	269	171	157	74	60
21	104	2200	608	756	1370	1360	530	263	213	133	72	59
22	103	2060	947	710	1270	1220	506	253	198	124	72	58
23	101	3410	1260	741	1220	1210	483	246	177	122	70	57
24	102	5840	1180	1060	1070	1080	460	241	162	117	69	56
25	216	4320	1180	1490	964	985	441	237	155	123	68	62
26	459	3300	1280	1880	887	913	420	233	144	120	67	80
27	549	3930	1150	2120	833	840	404	232	139	116	66	71
28	357	3390	1100	2120	813	775	389	245	137	108	65	64
29	294	2640	1890	2060	---	721	376	231	136	102	65	59
30	630	2090	2000	1920	---	679	399	350	134	100	64	56
31	1390	---	1990	2880	---	637	---	630	---	99	63	---
TOTAL	7193	47016	32845	48739	54323	68200	15343	10709	6449	3996	2466	1915
MEAN	232	1567	1060	1572	1940	2200	511	345	215	129	79.5	63.8
MAX	1390	5840	2000	2880	8070	7020	619	630	511	243	104	89
MIN	101	403	608	710	813	637	376	231	134	99	63	56
AC-FT	14270	93260	65150	96670	107700	135300	30430	21240	12790	7930	4890	3800
CFSM	1.29	8.71	5.89	8.73	10.8	12.2	2.84	1.92	1.19	.72	.44	.35
IN.	1.49	9.72	6.79	10.07	11.23	14.09	3.17	2.21	1.33	.83	.51	.40

CAL YR 1986 TOTAL 302948 MEAN 830 MAX 6870 MIN 62 AC-FT 600900 CFSM 4.61 IN. 62.61
WTR YR 1987 TOTAL 299194 MEAN 820 MAX 8070 MIN 56 AC-FT 593500 CFSM 4.55 IN. 61.83

14304350 SUNSHINE CREEK NEAR VALSETZ, OR

LOCATION.--Lat 44°48'34", long 123°44'34", in NW 1/4 NW 1/4 sec.12, T.9 S., R.9 W., Lincoln County, Hydrologic Unit 17100204, on right bank about 50 ft upstream from Deer Creek, and about 5 mi southwest of Valsetz.

DRAINAGE AREA.--6.7 mi^2.

PERIOD OF RECORD.--October 1972 to current year. Prior to October 1985, in reports of Oregon Water Resources Department.

GAGE.--Water-stage recorder. Elevation of gage is 600 ft, from topographic map.

REMARKS.--Estimated daily discharges: June 25 to July 3. Records good except for those above 240 ft^3/s, and those for June 17 to July 8, which are fair.

AVERAGE DISCHARGE.--15 years, 54.6 ft^3/s, 110.67 in/yr, 39,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft^3/s Nov. 25, 1977, gage height, 4.32 ft; minimum discharge, 0.54 ft^3/s Sept. 17, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater that base discharge of 560 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 23	2330	752	3.68	Feb. 1	0400	*1,180	*4.28
Nov. 27	0300	621	3.45	Mar. 3	1600	671	3.54

Minimum discharge, 0.59 ft^3/s Sept. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	37	69	108	855	58	23	23	20	2.7	1.7	.67
2	8.4	26	54	111	321	125	22	47	15	2.7	1.6	.69
3	7.5	21	44	128	164	455	21	45	13	2.9	1.5	.72
4	7.1	17	37	150	109	283	20	34	12	3.1	1.4	.73
5	6.8	15	33	112	78	134	20	29	11	3.9	1.3	.68
6	6.1	14	29	83	61	92	21	26	11	2.9	1.3	.61
7	5.5	26	26	62	50	68	22	22	9.7	2.5	1.3	.65
8	5.5	22	24	50	42	56	27	19	8.9	2.4	1.2	.74
9	5.5	24	22	42	36	71	22	18	8.4	2.2	1.1	.76
10	5.5	21	21	37	32	118	28	17	8.0	2.2	1.3	.72
11	5.3	19	21	33	31	104	33	16	7.5	2.0	1.3	.85
12	5.3	18	21	43	30	196	31	16	7.2	1.9	1.2	.96
13	5.3	16	25	57	59	184	29	14	6.9	1.9	1.4	.89
14	5.3	15	30	138	82	170	26	13	6.7	1.8	1.7	1.6
15	5.3	14	29	83	89	126	24	13	6.4	1.7	1.4	2.0
16	5.1	21	26	62	155	91	22	12	6.4	1.7	1.3	1.3
17	5.1	53	24	51	177	88	26	11	6.3	1.9	1.2	1.0
18	5.0	70	23	43	121	82	25	10	6.0	6.7	1.1	.88
19	4.9	73	23	37	86	81	23	9.7	5.7	8.7	.95	.75
20	5.0	262	21	32	67	75	21	8.9	6.6	4.8	.91	.68
21	4.9	221	20	30	55	63	20	8.5	8.5	3.8	.85	.65
22	4.9	176	32	29	49	54	19	8.0	7.1	3.4	.85	.67
23	4.9	458	47	33	45	54	18	7.5	6.2	3.0	.85	.71
24	5.1	615	50	43	38	47	18	7.2	5.6	2.7	.82	.81
25	8.8	273	50	62	34	41	17	7.5	4.5	2.8	.75	.98
26	18	264	74	122	31	37	16	9.1	4.0	2.7	.72	1.3
27	24	487	61	141	29	33	15	8.9	3.5	2.5	.72	1.2
28	16	304	52	123	28	31	14	10	3.0	2.3	.69	1.3
29	14	166	106	112	---	28	14	8.8	2.7	2.1	.74	1.2
30	28	100	97	92	---	26	17	24	2.7	1.9	.74	1.2
31	67	---	73	323	---	24	---	28	---	1.8	.66	---
TOTAL	314.7	3848	1264	2572	2954	3095	654	531.1	230.5	89.6	34.55	27.90
MEAN	10.2	128	40.8	83.0	105	99.8	21.8	17.1	7.68	2.89	1.11	.93
MAX	67	615	106	323	855	455	33	47	20	8.7	1.7	2.0
MIN	4.9	14	20	29	28	24	14	7.2	2.7	1.7	.66	.61
AC-FT	624	7630	2510	5100	5860	6140	1300	1050	457	178	69	55
CFSM	1.52	19.1	6.09	12.4	15.7	14.9	3.25	2.56	1.15	.43	.17	.14
IN.	1.75	21.37	7.02	14.28	16.40	17.18	3.63	2.95	1.28	.50	.19	.15

CAL YR 1986 TOTAL 16746.9 MEAN 45.9 MAX 948 MIN 1.5 AC-FT 33220 CFSM 6.85 IN. 92.98
WTR YR 1987 TOTAL 15615.35 MEAN 42.8 MAX 855 MIN .61 AC-FT 30970 CFSM 6.39 IN. 86.70

14304850 BIG ROCK CREEK NEAR VALSETZ, OR

LOCATION.--Lat 44°46'41", long 123°41'34", in SE 1/4 NW 1/4 sec.20, T.9 S., R.8 W., Polk County, Hydrologic Unit 17100204, on left bank about 0.2 mi downstream from access cable, and 4.7 mi southwest of Valsetz.

DRAINAGE AREA.--6.9 mi^2.

PERIOD OF RECORD.--October 1972 to current year. Prior to October 1985, in reports of Oregon Water Resources Department.

GAGE.--Water-stage recorder. Elevation of gage is 710 ft, from topographic map.

REMARKS.--Estimated daily discharges: July 29 to Sept. 30. Records good except for estimated daily discharges, which are fair. Water temperatures published February 1979 to September 1985.

AVERAGE DISCHARGE.--14 years (water years 1974-87), 45.9 ft^3/s, 90.34 in/yr, 33,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,520 ft^3/s Dec. 21, 1972, gage height, 5.55 ft; minimum daily discharge, 0.92 ft^3/s Sept. 2-7, 1987, occurred during period of no record.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 24	1230	590	3.82	Feb. 1	0500	*1,200	*4.83
Nov. 27	0400	540	3.71				

Minimum daily discharge, 0.92 ft^3/s Sept. 2-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	25	86	107	781	43	26	21	14	3.9	2.3	.96
2	5.8	19	67	112	295	78	24	35	11	4.1	2.1	.92
3	4.8	15	54	127	165	279	24	32	9.3	4.1	2.0	.92
4	4.2	13	46	177	113	226	22	27	8.7	4.5	1.9	.92
5	3.9	12	40	129	84	122	22	24	8.9	5.7	1.8	.92
6	3.4	11	35	99	67	87	23	21	8.4	4.7	1.8	.92
7	3.3	24	31	75	55	66	23	19	7.6	4.3	1.8	.92
8	3.1	19	28	59	47	54	26	18	7.3	4.1	1.7	.94
9	3.1	22	26	49	42	63	22	16	7.1	3.8	1.7	.98
10	3.1	20	23	41	37	94	26	16	6.8	3.9	1.7	1.0
11	2.8	18	23	36	35	87	29	15	6.6	3.6	1.7	1.1
12	2.8	17	22	41	33	158	28	16	6.5	3.3	1.8	1.2
13	2.7	15	27	46	61	165	26	14	5.9	3.1	2.0	1.4
14	2.8	15	32	109	84	154	24	13	5.7	3.0	2.2	1.7
15	2.8	14	27	74	91	119	23	13	5.6	2.8	2.0	2.3
16	2.7	19	25	59	139	90	22	12	5.6	2.9	1.8	2.0
17	2.6	67	24	48	158	85	26	11	5.5	3.1	1.6	1.5
18	2.7	63	22	42	120	81	24	11	5.2	8.3	1.4	1.2
19	2.7	66	22	36	89	79	22	10	5.0	8.4	1.3	1.1
20	2.7	202	21	32	69	73	21	9.8	5.5	4.4	1.2	.94
21	2.7	207	20	28	56	64	20	9.2	6.9	3.7	1.2	.94
22	2.7	170	29	28	49	55	19	8.9	5.8	3.6	1.2	.94
23	2.7	323	43	31	44	55	18	8.5	5.0	3.4	1.1	1.1
24	2.7	469	45	39	38	48	17	8.3	4.7	3.4	1.1	1.2
25	5.7	245	46	66	34	43	16	8.2	4.5	3.7	1.0	1.4
26	17	206	72	108	31	40	15	7.7	4.2	3.5	.98	1.6
27	23	432	62	122	29	37	15	7.5	4.0	3.3	.96	1.6
28	16	305	56	115	27	33	14	7.9	4.0	3.1	.96	1.6
29	14	190	95	103	---	31	13	7.2	4.2	2.9	.96	1.6
30	25	119	93	86	---	29	17	18	3.9	2.7	.96	1.6
31	49	---	79	284	---	27	---	21	---	2.4	.96	---
TOTAL	229.1	3342	1321	2508	2873	2665	647	466.2	193.4	121.7	47.18	37.42
MEAN	7.39	111	42.6	80.9	103	86.0	21.6	15.0	6.45	3.93	1.52	1.25
MAX	49	469	95	284	781	279	29	35	14	8.4	2.3	2.3
MIN	2.6	11	20	28	27	27	13	7.2	3.9	2.4	.96	.92
AC-FT	454	6630	2620	4970	5700	5290	1280	925	384	241	94	74
CFSM	1.07	16.1	6.18	11.7	14.9	12.5	3.13	2.18	.93	.57	.22	.18
IN.	1.24	18.02	7.12	13.52	15.49	14.37	3.49	2.51	1.04	.66	.25	.20

CAL YR 1986 TOTAL 14956.0 MEAN 41.0 MAX 802 MIN 1.5 AC-FT 29670 CFSM 5.94 IN. 80.63
WTR YR 1987 TOTAL 14451.00 MEAN 39.6 MAX 781 MIN .92 AC-FT 28660 CFSM 5.74 IN. 77.91

14305500 SILETZ RIVER AT SILETZ, OR

LOCATION.--Lat 44°42'55", long 123°53'10", in NW 1/4 SW 1/4 sec.11, T.10 S., R.10 W., Lincoln County, Hydrologic Unit 17100204, on right bank, 1.8 mi downstream from Baker Creek, 1.5 mi east of Siletz, and at mile 42.6.

DRAINAGE AREA.--202 mi^2.

PERIOD OF RECORD.--October 1905 to November 1911, January to May 1912, January to June 1924, November 1924 to current year. Prior to December 1905 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1935: 1943, 1947-49(M), 1953-58(M).

GAGE.--Water-stage recorder. Datum of gage is 102.32 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1905, to Sept 30, 1938, nonrecording gage at various sites within 2.5 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Nov. 15 to Dec. 18, Jan. 26 to Feb. 12. Records excellent. Slight regulation from logponds. Small diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--68 years (water years 1906-11, 1926-87), 1,550 ft^3/s, 104.20 in/yr, 1,123,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1905-12, 1924-38).--Maximum discharge, 34,600 ft^3/s Nov. 22, 1909, gage height, 24.6 ft, site and datum then in use; minimum observed discharge, 51 ft^3/s Dec. 6, 7, 1929.

EXTREMES FOR PERIOD OF RECORD (1938-87).--Maximum discharge, 32,200 ft^3/s Jan. 28, 1965, gage height, 27.32 ft, present site and datum; minimum discharge, 48 ft^3/s Sept. 25, 26, Oct. 4, 1965, Sept. 28, 29, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1921, reached a stage of 31.6 ft, at site 2.5 mi downstream at different datum, from floodmark, discharge, 40,800 ft^3/s, from rating curve extended above 17,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	0600	*20,000	a*18.86	No other peak greater than base discharge.			

Minimum discharge, 56 ft^3/s Sept. 30.

a From National Weather Service telemetry.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317	1280	2690	3330	17000	1400	802	646	659	153	117	62
2	273	897	2080	3670	9190	2480	753	952	523	156	113	62
3	243	703	1690	3870	5750	8490	736	1080	440	156	109	64
4	220	586	1430	4770	4000	7370	692	906	387	161	105	64
5	205	509	1270	4000	3070	4330	669	803	370	199	101	63
6	191	455	1090	3160	2400	3150	687	722	354	188	98	61
7	177	842	970	2490	2100	2450	697	656	320	163	98	62
8	166	785	870	2010	1900	2030	770	600	301	163	95	64
9	160	781	804	1690	1600	2180	686	549	283	153	91	65
10	155	729	741	1450	1400	3730	752	513	269	157	94	63
11	145	669	707	1280	1230	3220	861	480	259	152	97	65
12	137	613	713	1480	1060	5620	864	511	249	140	95	69
13	133	559	799	1610	1690	5410	814	464	240	133	100	69
14	131	532	1080	3070	2400	5140	759	433	231	127	112	72
15	129	478	1150	2430	2390	4110	719	410	224	120	104	107
16	126	506	977	1970	3360	3170	677	382	220	115	98	90
17	125	1260	870	1650	3920	2900	742	364	220	124	91	73
18	125	1370	810	1430	3380	2770	775	348	210	219	87	67
19	122	1840	822	1270	2720	2650	719	334	202	423	83	64
20	119	4580	735	1130	2230	2400	684	322	204	232	80	62
21	116	5250	707	1030	1890	2090	656	308	254	187	78	60
22	114	4770	1040	958	1660	1820	625	295	230	170	77	60
23	112	6840	2160	1040	1550	1780	595	285	205	162	76	59
24	111	11400	1890	1370	1350	1560	559	279	192	153	74	59
25	159	6910	1670	2000	1200	1400	530	275	183	153	73	62
26	443	5510	2340	3200	1100	1290	502	266	175	153	71	69
27	821	9610	2020	4220	1020	1170	476	262	165	146	69	72
28	562	7690	1740	3790	953	1080	451	274	160	137	68	64
29	430	5420	3360	3550	---	990	433	265	158	128	68	59
30	584	3650	3530	3090	---	918	484	465	155	124	66	56
31	2040	---	2720	5240	---	857	---	778	---	121	65	---
TOTAL	8891	87024	45475	77248	83513	89955	20169	15227	8042	5068	2753	1988
MEAN	287	2901	1467	2492	2983	2902	672	491	268	163	88.8	66.3
MAX	2040	11400	3530	5240	17000	8490	864	1080	659	423	117	107
MIN	111	455	707	958	953	857	433	262	155	115	65	56
AC-FT	17640	172600	90200	153200	165600	178400	40010	30200	15950	10050	5460	3940
CFSM	1.42	14.4	7.26	12.3	14.8	14.4	3.33	2.43	1.33	.81	.44	.33
IN.	1.64	16.03	8.37	14.23	15.38	16.57	3.71	2.80	1.48	.93	.51	.37

CAL YR 1986 TOTAL 451155 MEAN 1236 MAX 14700 MIN 71 AC-FT 894900 CFSM 6.12 IN. 83.08
WTR YR 1987 TOTAL 445353 MEAN 1220 MAX 17000 MIN 56 AC-FT 883400 CFSM 6.04 IN. 82.02

14306030 YAQUINA RIVER NEAR CHITWOOD, OR

LOCATION.--Lat 44°39'29", long 123°50'15", in NE 1/4 SW 1/4 sec.31, T.10 S., R.9 W., Lincoln County, Hydrologic Unit 17100204, on left bank 200 ft below Thornton Creek and 1.1 mi west of Chitwood, and at mile 29.3.

DRAINAGE AREA.--71.0 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 28.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--15 years, 255 ft^3/s, 48.77 in/yr, 184,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,150 ft^3/s Nov. 16, 1973, gage height, 14.43 ft; minimum discharge, 2.8 ft^3/s Sept. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	1630	*2,980	*9.73				

Minimum discharge, 5.9 ft^3/s Sept. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	120	539	457	2290	185	169	116	71	20	13	7.1
2	27	78	403	761	2010	194	158	127	55	20	12	6.5
3	24	58	323	759	1310	608	154	142	48	20	12	7.3
4	21	48	272	1020	911	905	141	124	45	21	13	7.3
5	20	43	235	930	679	622	135	114	44	24	12	7.5
6	18	40	199	812	523	471	136	106	44	25	11	7.2
7	18	127	171	699	418	375	129	99	40	21	9.9	7.6
8	17	145	151	553	346	325	128	92	38	22	9.1	8.8
9	17	136	137	439	297	328	117	87	37	20	8.6	9.3
10	16	123	125	360	260	492	127	83	35	19	8.6	8.8
11	16	105	118	310	231	463	148	80	34	19	9.3	9.1
12	15	89	116	298	200	634	168	85	33	18	9.3	9.9
13	15	77	118	304	251	906	158	79	32	16	10	12
14	15	72	129	537	401	1000	146	74	31	15	16	13
15	15	62	126	519	419	852	138	71	30	15	16	14
16	15	60	117	424	579	682	129	66	30	14	14	13
17	15	155	112	355	662	582	142	64	30	16	13	13
18	16	181	108	309	659	585	150	62	28	36	12	11
19	16	225	104	274	578	726	137	59	27	73	12	10
20	15	336	100	246	477	654	133	58	27	35	11	10
21	15	572	97	221	401	535	130	57	32	25	11	9.3
22	15	582	113	206	339	440	126	54	30	22	11	8.5
23	14	642	177	211	312	396	120	52	26	21	10	8.4
24	14	940	219	218	277	339	113	51	25	19	9.3	9.5
25	21	952	252	451	251	304	108	51	24	19	8.6	9.0
26	41	714	303	687	226	279	103	49	22	18	8.1	9.6
27	63	1210	296	871	208	256	98	49	22	17	7.6	9.9
28	39	1640	270	805	190	235	93	49	21	16	7.9	10
29	30	1190	361	684	---	214	90	48	20	15	8.4	9.0
30	42	760	467	578	---	197	100	66	20	14	8.5	7.8
31	160	---	411	607	---	182	---	93	---	14	8.5	---
TOTAL	816	11482	6669	15905	15705	14966	3924	2407	1001	669	330.7	283.4
MEAN	26.3	383	215	513	561	483	131	77.6	33.4	21.6	10.7	9.45
MAX	160	1640	539	1020	2290	1000	169	142	71	73	16	14
MIN	14	40	97	206	190	182	90	48	20	14	7.6	6.5
AC-FT	1620	22770	13230	31550	31150	29690	7780	4770	1990	1330	656	562
CFSM	.37	5.39	3.03	7.23	7.90	6.80	1.84	1.09	.47	.30	.15	.13
IN.	.43	6.02	3.49	8.33	8.23	7.84	2.06	1.26	.52	.35	.17	.15

CAL YR 1986 TOTAL 80151.2 MEAN 220 MAX 3540 MIN 4.0 AC-FT 159000 CFSM 3.09 IN. 41.99
WTR YR 1987 TOTAL 74158.1 MEAN 203 MAX 2290 MIN 6.5 AC-FT 147100 CFSM 2.86 IN. 38.85

14306100 NORTH FORK ALSEA RIVER AT ALSEA, OR

LOCATION.--Lat 44°22'45", long 123°35'40", in SE 1/4 sec.1, T.14 S., R.8 W., Benton County, Hydrologic Unit 17100205, on left bank at Alsea, 0.2 mi upstream from bridge on Lobster Valley Road, 0.7 mi upstream from confluence with South Fork, and at mile 49.4.

DRAINAGE AREA.--63.0 mi².

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 272.31 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation. Some diversions by pumping upstream from station.

AVERAGE DISCHARGE.--30 years, 279 ft³/s, 60.14 in/yr, 202,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/s Dec. 22, 1964, gage height, 14.57 ft, from rating curve extended above 2,900 ft³/s on basis of slope-area measurement at gage height 11.80 ft; minimum discharge, 8.3 ft³/s June 8, Sept. 19, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 27	1330	2,030	5.19	Feb. 1	0900	*5,270	*8.68

Minimum discharge, 9.8 ft³/s Aug. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	149	570	911	3810	220	173	111	86	30	26	15
2	36	100	425	1120	2290	245	162	150	70	30	26	15
3	33	76	334	1040	1340	597	168	160	62	30	24	16
4	31	63	283	1060	948	644	153	130	58	32	23	17
5	30	56	250	839	717	467	150	114	56	36	23	17
6	29	53	220	880	565	382	151	105	55	34	22	17
7	28	98	195	683	468	327	146	97	52	31	22	17
8	26	106	177	529	406	303	146	90	50	30	22	18
9	27	99	164	427	357	375	135	84	48	29	22	18
10	27	94	152	364	318	475	144	81	46	29	22	18
11	26	82	144	322	292	452	158	77	45	28	23	19
12	25	74	149	339	271	743	158	87	44	26	22	20
13	25	66	166	373	411	1000	148	79	43	25	24	20
14	25	67	379	667	563	1020	139	74	42	25	26	20
15	25	60	406	520	597	837	130	72	42	24	25	21
16	25	58	290	414	827	624	124	68	42	24	24	20
17	26	112	244	350	768	545	141	65	42	29	23	19
18	26	144	218	308	653	555	142	63	40	73	21	17
19	26	224	203	276	534	560	130	63	39	107	20	17
20	25	398	180	254	451	495	123	62	39	51	19	17
21	25	779	170	234	393	427	118	60	45	39	19	17
22	25	1210	267	223	355	368	113	58	40	36	19	17
23	25	839	470	242	339	356	108	58	37	35	19	17
24	25	1100	421	462	302	309	104	59	35	32	18	17
25	27	978	374	957	275	283	100	57	34	33	18	18
26	51	744	375	1110	256	260	96	57	33	31	19	20
27	122	1670	327	1080	240	241	92	56	32	30	17	20
28	64	1920	294	1100	224	225	89	57	31	29	17	17
29	55	1370	582	1080	---	210	86	54	31	27	17	17
30	162	825	569	829	---	197	96	81	30	27	17	16
31	236	---	442	1490	---	184	---	116	---	27	16	---
TOTAL	1378	13614	9440	20483	18970	13926	3923	2545	1349	1069	655	534
MEAN	44.5	454	305	661	677	449	131	82.1	45.0	34.5	21.1	17.8
MAX	236	1920	582	1490	3810	1020	173	160	86	107	26	21
MIN	25	53	144	223	224	184	86	54	30	24	16	15
AC-FT	2730	27000	18720	40630	37630	27620	7780	5050	2680	2120	1300	1060
CFSM	.71	7.20	4.83	10.5	10.8	7.13	2.08	1.30	.71	.55	.34	.28
IN.	.81	8.04	5.57	12.09	11.20	8.22	2.32	1.50	.80	.63	.39	.32

CAL YR 1986 TOTAL 87882 MEAN 241 MAX 3250 MIN 16 AC-FT 174300 CFSM 3.82 IN. 51.89
WTR YR 1987 TOTAL 87886 MEAN 241 MAX 3810 MIN 15 AC-FT 174300 CFSM 3.82 IN. 51.89

14306340 EAST FORK LOBSTER CREEK NEAR ALSEA, OR

LOCATION.--Lat 44°14'53", long 123°38'07", in NE 1/4 SE 1/4 sec.22, T.15 S., R.8 W., Benton County, Hydrologic Unit 17100205, on left bank 500 ft upstream from mouth, and 9 mi south of Alsea.

DRAINAGE AREA.--5.70 mi^2.

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 680 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records good above 5 ft^3/s, fair below.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 652 ft^3/s (revised) Nov. 2, 1984, gage height, 3.81 ft, from rating curve extended above 260 ft^3/s; minimum discharge, 0.17 ft^3/s Sept. 27, 28, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 21	2200	334	3.25	Feb. 1	0730	*526	*3.62
Jan. 31	1700	343	3.27				

Minimum discharge, 0.17 ft^3/s Sept. 27, 28.

REVISIONS.--The peak discharges and annual maximum (*) reported for water years 1984, 1985, and 1986 have been revised as shown in the following table. They supercede figures published in the annual reports for those years.

EXTREMES FOR WATER YEARS 1984-86.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Water year	Date	Time	Discharge (ft^3/s)	Gage height (ft)	Water year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
1984	Dec. 29	2130	305	3.18	1985	Nov. 10	0300	318	3.21
	Feb. 13	0800	*435	*3.46	1986	Feb. 16	1600	348	3.28
1985	Nov. 2	0500	*652	*3.81		Feb. 23	0500	*375	*3.34

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	5.8	43	122	354	17	14	8.8	9.4	1.7	1.4	.70
2	2.0	3.5	33	101	231	19	13	15	6.8	1.7	1.4	.70
3	1.8	2.3	27	99	117	49	13	17	5.7	1.7	1.4	.70
4	1.6	1.7	24	106	74	49	13	13	5.2	1.7	1.3	.70
5	1.5	1.4	21	69	57	40	11	11	4.8	2.0	1.3	.70
6	1.4	1.5	18	65	46	35	11	9.7	4.7	2.2	1.3	.59
7	1.1	5.7	16	52	38	32	11	8.4	4.2	2.2	1.3	.54
8	1.1	5.4	14	42	33	28	11	7.7	3.9	2.2	.88	.54
9	1.0	5.6	14	35	29	33	10	6.6	3.6	1.9	1.0	.54
10	1.0	6.3	12	31	25	38	12	6.2	3.6	1.9	1.0	.54
11	1.0	5.0	12	26	22	34	14	5.8	3.3	1.9	1.0	.54
12	.94	3.8	12	26	21	53	14	6.6	3.1	1.7	1.0	.62
13	.91	3.0	14	31	39	63	13	6.5	3.1	1.7	.90	.70
14	.84	2.8	26	53	53	78	11	5.8	2.9	1.5	1.3	.76
15	.84	2.6	28	43	58	65	11	5.5	2.9	1.4	1.4	1.0
16	.84	2.6	21	35	72	51	9.9	5.1	2.9	1.4	1.4	1.1
17	.79	15	17	30	58	46	10	4.8	2.8	1.6	1.3	1.0
18	.77	25	16	27	58	56	11	4.4	2.6	7.9	1.3	.89
19	.70	39	15	23	49	59	11	4.2	2.4	9.0	1.2	.72
20	.70	86	14	22	41	49	11	4.1	2.4	4.0	.99	.65
21	.70	115	13	20	36	41	10	3.9	3.3	2.9	.90	.62
22	.67	138	23	19	32	35	9.4	3.6	3.4	2.6	.90	.60
23	.64	89	50	20	31	33	8.7	3.6	2.6	2.4	1.1	.50
24	.64	123	40	56	28	30	8.0	3.6	2.4	2.1	.69	.47
25	.70	81	36	116	24	27	7.6	3.6	2.2	2.0	.70	.47
26	2.8	94	31	113	22	24	7.4	3.6	2.0	2.0	.94	.54
27	5.6	246	27	93	20	22	7.0	3.4	1.9	1.9	.59	.80
28	2.7	174	24	94	18	20	6.7	3.4	1.7	1.9	.70	.51
29	2.7	92	49	90	---	17	5.9	3.4	1.7	1.6	.70	.54
30	12	57	48	66	---	16	6.8	7.5	1.7	1.5	.70	.54
31	15	---	37	180	---	15	---	11	---	1.5	.70	---
TOTAL	67.48	1433.0	775	1905	1686	1174	312.4	206.8	103.2	73.7	32.69	19.82
MEAN	2.18	47.8	25.0	61.5	60.2	37.9	10.4	6.67	3.44	2.38	1.05	.66
MAX	15	246	50	180	354	78	14	17	9.4	9.0	1.4	1.1
MIN	.64	1.4	12	19	18	15	5.9	3.4	1.7	1.4	.59	.47
AC-FT	134	2840	1540	3780	3340	2330	620	410	205	146	65	39
CFSM	.38	8.38	4.39	10.8	10.6	6.64	1.83	1.17	.60	.42	.19	.12
IN.	.44	9.35	5.06	12.43	11.00	7.56	2.04	1.35	.67	.48	.21	.13

CAL YR 1986 TOTAL 8176.86 MEAN 22.4 MAX 322 MIN .48 AC-FT 16220 CFSM 3.93 IN. 53.36
WTR YR 1987 TOTAL 7789.09 MEAN 21.3 MAX 354 MIN .47 AC-FT 15450 CFSM 3.74 IN. 50.83

14306400 FIVE RIVERS NEAR FISHER, OR

LOCATION.--Lat 44°20'15", long 123°49'35", W-1/2 sec.19, T.14 S., R.9 W., Lincoln County, Hydrologic Unit 17100205, in Siuslaw National Forest, on left bank at downstream side of abandoned highway bridge, 500 ft downstream from Lobster Creek, 3.2 mi north of Fisher, and at mile 3.3.

DRAINAGE AREA.--114 mi^2.

PERIOD OF RECORD.--August 1958 to September 1963, October 1967 to current year.

REVISED RECORDS.--WSP 1718: 1959.

GAGE.--Water-stage recorder. Elevation of gage is 130 ft from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--25 years, 549 ft^3/s, 65.40 in/yr, 397,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft^3/s Jan. 21, 1972, gage height, 21.08 ft; minimum discharge, 16 ft^3/s Oct. 1, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 22.3 ft, from floodmarks, discharge, 19,000 ft^3/s from rating curve extended above 10,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	0830	4,920	11.51	Feb. 1	0930	*9,130	*15.59

Minimum discharge, 22 ft^3/s Sept. 2, 6, 7, 24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	273	1020	1810	7120	410	343	201	185	54	41	23
2	54	180	789	2150	4300	472	322	273	140	55	41	22
3	49	139	645	1940	2580	1790	316	291	119	55	39	24
4	46	116	546	1920	1760	1710	295	235	107	57	37	24
5	44	102	473	1520	1330	1160	289	205	104	63	36	23
6	42	96	411	1500	1060	939	282	185	102	63	34	22
7	41	147	362	1200	885	798	278	170	95	56	34	22
8	39	159	325	973	757	713	275	157	91	56	34	23
9	38	178	295	808	668	847	249	146	87	52	32	24
10	38	178	271	690	595	1110	270	139	84	52	33	24
11	37	152	258	604	550	1030	292	133	82	50	34	25
12	35	132	257	618	504	1810	267	155	80	47	33	27
13	35	119	331	649	742	2220	249	144	78	45	35	28
14	35	119	518	915	1020	2290	233	132	75	43	40	29
15	35	106	558	795	1020	1850	222	125	74	41	37	31
16	35	101	437	660	1340	1380	211	120	73	40	35	33
17	38	152	370	576	1130	1180	233	115	77	43	33	28
18	41	235	339	516	1040	1280	241	112	72	121	31	26
19	39	394	337	466	908	1300	223	109	69	192	30	25
20	36	1020	300	426	793	1100	210	107	69	91	29	23
21	36	1640	284	393	722	934	200	104	83	68	29	23
22	35	2450	507	378	655	802	191	100	76	61	28	23
23	35	1590	1030	411	675	755	183	98	68	58	29	23
24	35	2110	847	802	606	653	174	97	64	53	28	22
25	39	1820	739	1800	549	588	167	97	62	54	26	24
26	120	1560	681	2040	499	535	162	96	60	51	26	26
27	250	4310	588	2000	459	488	155	96	58	49	26	27
28	132	3510	534	2030	425	452	149	96	56	46	25	25
29	117	2180	985	1950	---	419	145	94	55	44	24	23
30	371	1410	992	1520	---	391	168	155	54	43	24	22
31	477	---	797	2560	---	365	---	252	---	42	24	---
TOTAL	2464	26678	16826	36620	34692	31771	6994	4539	2499	1845	987	744
MEAN	79.5	889	543	1181	1239	1025	233	146	83.3	59.5	31.8	24.8
MAX	477	4310	1030	2560	7120	2290	343	291	185	192	41	33
MIN	35	96	257	378	425	365	145	94	54	40	24	22
AC-FT	4890	52920	33370	72640	68810	63020	13870	9000	4960	3660	1960	1480
CFSM	.70	7.80	4.76	10.4	10.9	8.99	2.05	1.28	.73	.52	.28	.22
IN.	.80	8.71	5.49	11.95	11.32	10.37	2.28	1.48	.82	.60	.32	.24

CAL YR 1986 TOTAL 169585 MEAN 465 MAX 5630 MIN 18 AC-FT 336400 CFSM 4.08 IN. 55.34
WTR YR 1987 TOTAL 166659 MEAN 457 MAX 7120 MIN 22 AC-FT 330600 CFSM 4.01 IN. 54.38

14306500 ALSEA RIVER NEAR TIDEWATER, OR

LOCATION.--Lat 44°23'10", long 123°49'50", in NW 1/4 NW 1/4 sec.6, T.14 S., R.9 W., Lincoln County, Hydrologic Unit 17100205, on right bank 0.9 mi downstream from Grass Creek, 2.5 mi upstream from Scott Creek, 3.8 mi southeast of Tidewater, and at mile 21.0.

DRAINAGE AREA.--334 mi^2.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 48.16 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1939, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 11, 12, Feb. 7 to Mar. 12. Records good. No regulation. Diversion for irrigation upstream from station.

AVERAGE DISCHARGE.--48 years, 1,514 ft^3/s, 61.56 in/yr, 1,097,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,800 ft^3/s Dec. 22, 1964, gage height, 27.44 ft; minimum discharge, 45 ft^3/s Sept. 26, 27, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood on or about Feb. 3, 1890, reached a stage of 29.5 ft, from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	1300	*20,200	*18.56	No other peak greater than base discharge.			

Minimum discharge, 66 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	813	2940	4120	16800	1690	958	576	519	152	120	71
2	171	523	2250	6390	12400	1220	903	677	391	153	119	67
3	156	394	1780	5420	7740	3530	892	790	332	153	116	69
4	145	323	1470	5740	5330	4140	851	657	299	157	111	70
5	136	282	1290	4560	3970	3750	813	583	286	170	106	70
6	130	259	1140	4600	3150	2280	819	533	283	175	102	70
7	124	370	1020	3730	2610	2270	787	494	267	164	101	69
8	119	487	941	2990	2190	1710	782	457	255	157	100	70
9	114	491	868	2470	1920	1830	725	432	245	149	96	72
10	114	499	805	2050	1630	2300	734	408	237	148	95	73
11	110	430	764	1760	1370	2100	824	393	233	146	99	73
12	105	372	780	1760	1310	4290	802	420	227	140	99	77
13	104	330	855	1920	1780	5510	746	423	220	132	100	80
14	103	324	1370	2800	2750	5780	699	387	213	126	111	82
15	103	301	1760	2550	2630	4910	665	367	208	121	112	86
16	103	285	1330	2050	3450	3710	632	356	205	116	106	88
17	107	430	1120	1730	1860	3150	657	341	211	121	100	82
18	111	638	1010	1510	2560	3290	719	330	205	235	94	76
19	109	1010	990	1370	2570	3500	659	321	197	585	90	72
20	106	1990	904	1250	2610	3020	621	314	193	293	88	70
21	106	4130	847	1170	1960	2590	597	307	213	204	84	69
22	103	6420	1120	1110	1800	2190	571	296	216	175	83	69
23	101	4280	2650	1180	1900	2050	552	287	195	167	83	68
24	101	5250	2290	2000	1750	1750	526	283	184	156	82	68
25	106	4830	1990	4800	1420	1550	506	286	176	152	80	69
26	211	3870	1880	5840	1270	1410	491	280	169	150	78	72
27	566	9590	1610	5800	1210	1300	471	278	164	143	77	75
28	384	9750	1430	5680	1130	1210	456	276	158	138	76	74
29	281	6600	2460	5710	---	1130	445	275	157	130	74	70
30	737	4130	2850	4500	---	1070	474	346	155	125	74	68
31	1210	---	2270	5790	---	1010	---	613	---	123	73	---
TOTAL	6365	69401	46784	104350	93070	81240	20377	12786	7013	5256	2929	2189
MEAN	205	2313	1509	3366	3324	2621	679	412	234	170	94.5	73.0
MAX	1210	9750	2940	6390	16800	5780	958	790	519	585	120	88
MIN	101	259	764	1110	1130	1010	445	275	155	116	73	67
AC-FT	12620	137700	92800	207000	184600	161100	40420	25360	13910	10430	5810	4340
CFSM	.61	6.93	4.52	10.1	9.95	7.85	2.03	1.23	.70	.51	.28	.22
IN.	.71	7.73	5.21	11.62	10.37	9.05	2.27	1.42	.78	.59	.33	.24

CAL YR 1986 TOTAL 477429 MEAN 1308 MAX 15700 MIN 68 AC-FT 947000 CFSM 3.92 IN. 53.17
WTR YR 1987 TOTAL 451760 MEAN 1238 MAX 16800 MIN 67 AC-FT 896100 CFSM 3.71 IN. 50.32

14306900 BIG CREEK NEAR ROOSEVELT BEACH, OR

LOCATION.--Lat 44°10'05", long 124°03'55", in SE 1/4 SE 1/4 sec.13, T.16 S., R.12 W., Lane County, Hydrologic Unit 17100205, on right bank 1.0 mi downstream from Frying Pan Creek, 2.5 mi east of Roosevelt Beach.

DRAINAGE AREA.--11.9 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 141 ft, by barometer.

REMARKS.--Estimated daily discharges: Oct. 1-22, Oct. 30 to Feb. 10. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--15 years, 92.3 ft^3/s, 105.33 in/yr, 66,870 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,150 ft^3/s Nov. 30, 1975, gage height, 6.90 ft; minimum discharge, 3.8 ft^3/s Oct. 15, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	unknown	*1,030	*a6.00	No other peak greater than base discharge.			

Minimum discharge, 5.0 ft^3/s Sept. 30.

a From floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	60	160	420	900	77	56	37	38	13	10	5.8
2	15	40	130	460	600	86	52	60	32	13	9.9	5.8
3	14	30	110	440	400	348	50	52	30	13	9.8	5.8
4	13	25	90	420	280	316	46	45	28	15	9.3	5.8
5	12	20	80	350	220	239	50	42	28	17	9.0	5.8
6	11	17	70	300	170	184	53	40	26	14	9.0	5.8
7	10	30	60	200	140	154	54	37	24	13	8.9	5.8
8	9.5	32	55	150	120	138	66	35	24	13	8.6	5.8
9	9.5	35	50	120	110	147	51	33	23	13	8.2	5.8
10	9.0	35	45	100	93	152	69	32	22	13	8.2	5.8
11	9.0	30	40	90	90	164	65	30	22	13	8.2	5.8
12	9.0	26	38	95	81	324	61	37	21	12	8.2	5.8
13	8.5	24	50	95	120	395	56	32	20	10	9.5	5.8
14	8.5	23	70	140	122	335	55	30	19	10	12	13
15	8.5	22	80	120	136	286	53	29	19	9.8	9.3	9.4
16	8.5	21	60	100	164	239	50	28	18	9.4	8.9	6.7
17	9.0	26	50	90	189	242	53	27	16	9.4	8.2	6.1
18	10	50	48	80	181	211	52	25	16	46	7.8	5.8
19	9.5	100	45	70	159	192	48	24	16	43	7.4	5.5
20	9.0	200	45	65	138	196	46	24	21	22	7.1	5.5
21	9.0	260	42	60	141	159	44	23	23	19	7.1	5.5
22	9.0	350	90	58	122	138	42	22	18	18	6.7	5.5
23	8.9	220	170	60	118	132	40	22	17	16	6.7	5.5
24	8.6	300	130	150	105	114	38	21	16	15	6.7	5.5
25	16	250	120	300	97	100	36	20	15	14	6.7	5.8
26	60	220	110	340	87	92	35	20	14	14	6.4	6.4
27	48	600	95	320	78	82	34	20	14	14	6.4	5.8
28	31	500	85	340	72	72	33	22	13	13	6.4	5.5
29	38	300	150	300	---	69	32	19	13	12	6.1	5.2
30	70	200	150	250	---	64	36	56	13	12	6.1	5.0
31	100	---	130	500	---	60	---	50	---	11	6.1	---
TOTAL	608.0	4046	2648	6583	5233	5507	1456	994	619	479.6	248.9	183.1
MEAN	19.6	135	85.4	212	187	178	48.5	32.1	20.6	15.5	8.03	6.10
MAX	100	600	170	500	900	395	69	60	38	46	12	13
MIN	8.5	17	38	58	72	60	32	19	13	9.4	6.1	5.0
AC-FT	1210	8030	5250	13060	10380	10920	2890	1970	1230	951	494	363
CFSM	1.65	11.3	7.18	17.8	15.7	14.9	4.08	2.69	1.73	1.30	.67	.51
IN.	1.90	12.65	8.28	20.58	16.36	17.22	4.55	3.11	1.94	1.50	.78	.57

CAL YR 1986 TOTAL 27538.5 MEAN 75.4 MAX 930 MIN 6.4 AC-FT 54620 CFSM 6.34 IN. 86.09
WTR YR 1987 TOTAL 28605.6 MEAN 78.4 MAX 900 MIN 5.0 AC-FT 56740 CFSM 6.59 IN. 89.42

14307580 LAKE CREEK NEAR DEADWOOD, OR

LOCATION.--Lat 44°04'58", long 123°47'05", in NW 1/4 NW 1/4 sec.21, T.17 S., R.9 W., Lane County, Hydrologic Unit 17100206, on right bank 0.2 mi upstream from Indian Creek, 1.5 mi southwest of Deadwood, and at mile 2.6.

DRAINAGE AREA.--174 mi^2.

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 178.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent above 100 ft^3/s, good below. Flow slightly regulated by natural storage in Triangle Lake. Several diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--20 years, 718 ft^3/s, 56.04 in/yr, 520,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,400 ft^3/s Dec. 25, 1980, gage height, 15.86 ft; minimum discharge, 12 ft^3/s Aug. 14, 15, 17, 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	0400	4,270	6.28	Feb. 1	1530	*6,690	*8.04
Nov. 27	0900	6,390	7.82				

Minimum discharge, 19 ft^3/s Sept. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	290	1520	1940	6190	556	441	285	237	70	47	23
2	80	206	1130	2770	5860	583	417	350	189	71	44	22
3	73	159	896	2570	4120	1090	412	399	161	71	41	21
4	66	131	742	2810	2940	1340	391	344	144	73	39	21
5	62	113	634	2250	2150	1080	383	304	138	79	36	21
6	58	103	550	2140	1650	932	384	273	134	79	35	20
7	56	132	484	1750	1330	817	391	247	123	73	34	20
8	52	166	437	1410	1120	745	385	224	116	72	33	21
9	50	193	400	1160	972	810	358	205	113	70	32	22
10	49	201	371	978	861	903	371	192	110	69	32	23
11	47	176	356	854	792	887	403	180	105	68	33	24
12	45	152	356	840	717	1250	396	191	103	64	32	27
13	44	135	400	894	993	1750	372	186	100	61	33	28
14	43	132	536	1250	1480	2070	348	173	96	59	35	28
15	43	119	635	1180	1580	1880	328	166	95	56	34	30
16	43	114	559	986	2330	1480	313	160	96	54	34	31
17	46	206	491	846	2050	1290	325	152	99	58	32	28
18	49	331	450	755	1850	1360	334	146	95	99	31	26
19	47	621	442	667	1560	1600	317	141	96	211	29	25
20	45	1180	408	606	1300	1390	300	138	97	115	28	25
21	44	2170	386	558	1130	1180	286	133	112	95	27	24
22	44	3220	479	536	996	1000	273	129	106	84	29	24
23	44	2270	1020	591	977	952	262	125	97	77	28	23
24	43	2490	1040	1200	874	835	250	123	91	69	28	23
25	47	2170	977	2680	781	748	238	122	86	64	27	25
26	80	2470	937	3080	704	677	229	122	82	61	26	28
27	149	5690	814	2820	642	614	220	122	78	57	24	29
28	120	5040	709	2720	590	567	210	122	74	53	25	27
29	109	3400	1070	2730	---	527	204	122	73	50	25	25
30	193	2220	1310	2180	---	492	224	169	72	49	24	24
31	465	---	1090	3520	---	464	---	268	---	50	24	---
TOTAL	2427	36000	21629	51271	48539	31869	9765	6013	3318	2281	981	738
MEAN	78.3	1200	698	1654	1734	1028	325	194	111	73.6	31.6	24.6
MAX	465	5690	1520	3520	6190	2070	441	399	237	211	47	31
MIN	43	103	356	536	590	464	204	122	72	49	24	20
AC-FT	4810	71410	42900	101700	96280	63210	19370	11930	6580	4520	1950	1460
CFSM	.45	6.90	4.01	9.51	9.96	5.91	1.87	1.11	.64	.42	.18	.14
IN.	.52	7.70	4.62	10.96	10.38	6.81	2.09	1.29	.71	.49	.21	.16

CAL YR 1986 TOTAL 236752 MEAN 649 MAX 9520 MIN 19 AC-FT 469600 CFSM 3.73 IN. 50.62
WTR YR 1987 TOTAL 214831 MEAN 589 MAX 6190 MIN 20 AC-FT 426100 CFSM 3.38 IN. 45.93

14307620 SIUSLAW RIVER NEAR MAPLETON, OR
(National stream quality accounting network station)

LOCATION.--Lat 44°03'45", long 123°52'55", in SW 1/4 NW 1/4 sec.27, T.17 S., R.10 W., Lane County, Hydrologic Unit 17100206, on right bank 250 ft above Shoemaker Creek, 2.5 mi northwest of Mapleton, and at mile 23.7.

DRAINAGE AREA.--588 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 41 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--20 years, 2,141 ft^3/s, 49.45 in/yr, 1,551,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,400 ft^3/s Jan. 21, 197[illegible], gage height, 28.45 ft; minimum discharge, 45 ft^3/s Aug. 18, 19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1964 reached a stage of about 28 ft, from information by local residents (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0500	17,500	15.86	Feb. 1	1330	*19,500	*16.86

Minimum discharge, 71 ft^3/s Sept. 4-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	1170	4130	4900	17900	1740	1380	856	742	202	179	83
2	308	809	3100	8800	17800	1780	1310	1030	594	202	173	75
3	274	603	2460	7590	12600	3090	1280	1180	503	202	164	73
4	247	484	2070	8270	8250	3810	1230	1030	448	203	156	72
5	226	411	1820	6490	5890	3040	1200	911	425	216	150	71
6	215	368	1620	5690	4570	2630	1200	817	411	225	143	71
7	202	401	1450	4610	3750	2330	1200	747	388	213	141	71
8	191	525	1320	3740	3230	2150	1190	688	368	206	139	72
9	185	656	1210	3140	2820	2240	1110	638	351	200	131	74
10	177	742	1130	2650	2510	2420	1120	596	315	195	130	99
11	171	671	1090	2320	2320	2390	1230	569	308	192	130	99
12	167	580	1110	2270	2120	3520	1250	590	307	183	130	93
13	164	504	1190	2470	2700	5580	1200	591	301	175	127	94
14	162	492	1650	3320	4650	6100	1130	552	291	167	127	101
15	158	479	2170	3270	4650	5550	1050	525	284	158	135	110
16	155	473	1850	2750	6280	4310	983	504	284	150	135	118
17	157	730	1580	2370	5940	3630	993	487	286	151	131	110
18	166	1160	1440	2120	5260	3590	1030	476	282	226	126	100
19	170	1820	1410	1930	4340	4150	971	462	272	580	121	96
20	162	2870	1320	1780	3670	3800	918	450	265	405	112	90
21	160	6160	1250	1670	3230	3270	883	438	301	335	107	86
22	158	8870	1370	1600	2880	2790	847	426	304	324	107	81
23	158	6310	2760	1710	2830	2650	816	413	277	294	107	79
24	158	6610	3120	2920	2570	2410	779	408	258	260	102	79
25	164	6020	2750	6850	2320	2210	750	406	246	237	97	80
26	230	5930	2640	8860	2120	2020	727	406	234	224	97	83
27	445	15200	2320	7980	1960	1860	700	406	221	209	94	89
28	432	16200	2070	7460	1820	1730	678	402	213	201	92	90
29	368	10300	2690	7530	---	1630	655	400	208	188	88	86
30	538	6190	3380	6060	---	1540	691	489	202	183	86	80
31	1350	---	2950	8740	---	1450	---	843	---	182	86	---
TOTAL	8170	103738	62420	141860	140980	91410	30501	18736	9889	7088	3843	2605
MEAN	264	3458	2014	4576	5035	2949	1017	604	330	229	124	86.8
MAX	1350	16200	4130	8860	17900	6100	1380	1180	742	580	179	118
MIN	155	368	1090	1600	1820	1450	655	400	202	150	86	71
AC-FT	16210	205800	123800	281400	279600	181300	60500	37160	19610	14060	7620	5170
CFSM	.45	5.88	3.42	7.78	8.56	5.01	1.73	1.03	.56	.39	.21	.15
IN.	.52	6.56	3.95	8.97	8.92	5.78	1.93	1.19	.63	.45	.24	.16

CAL YR 1986 TOTAL 723609 MEAN 1982 MAX 30900 MIN 71 AC-FT 1435000 CFSM 3.37 IN. 45.78
WTR YR 1987 TOTAL 621240 MEAN 1702 MAX 17900 MIN 71 AC-FT 1232000 CFSM 2.89 IN. 39.30

14307620 SIUSLAW RIVER NEAR MAPLETON, OR--continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

ERIOD OF RECORD.--June 1967 to current year.

ERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to September 1981.
WATER TEMPERATURE: November 1967 to September 1975. October 1977 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OV 25...	1435	5650	45	6.7	9.0	11.4	98	41	120	12	1	3.0
EB 26...	0955	2100	41	7.2	5.0	12.2	95	K4	K10	11	0	2.7
Y 28...	1420	401	44	7.3	14.5	10.4	101	K260	K4	12	0	3.0
P 01...	1400	81	55	7.7	24.0	8.6	102	K10	K12	14	0	3.4

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS IT FIELD (MG/L AS CACO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)
V 25...	1.1	3.6	0.8	12	14	0	4.1	3.9	<0.1	<0.01	0.80	0.5
B 26...	1.0	3.5	0.7	14	13	0	2.1	3.6	<0.1	<0.01	0.34	0.5
Y 28...	1.1	3.9	0.7	16	18	0	2.0	3.7	<0.1	0.01	<0.10	0.5
P 01...	1.4	4.9	1.1	18	21	0	2.6	5.3	0.1	0.04	<0.10	0.5

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 25...	<0.01	0.03	0.02	11	39	38	595	6.3	26	397	44
FEB 26...	<0.01	<0.01	0.01	12	28	36	159	1.1	4	23	--
MAY 28...	<0.01	0.01	0.02	12	38	36	60.6	0.5	7	7.6	--
SEP 01...	<0.01	<0.01	0.01	10	36	40	7.9	0.9	9	2.0	72

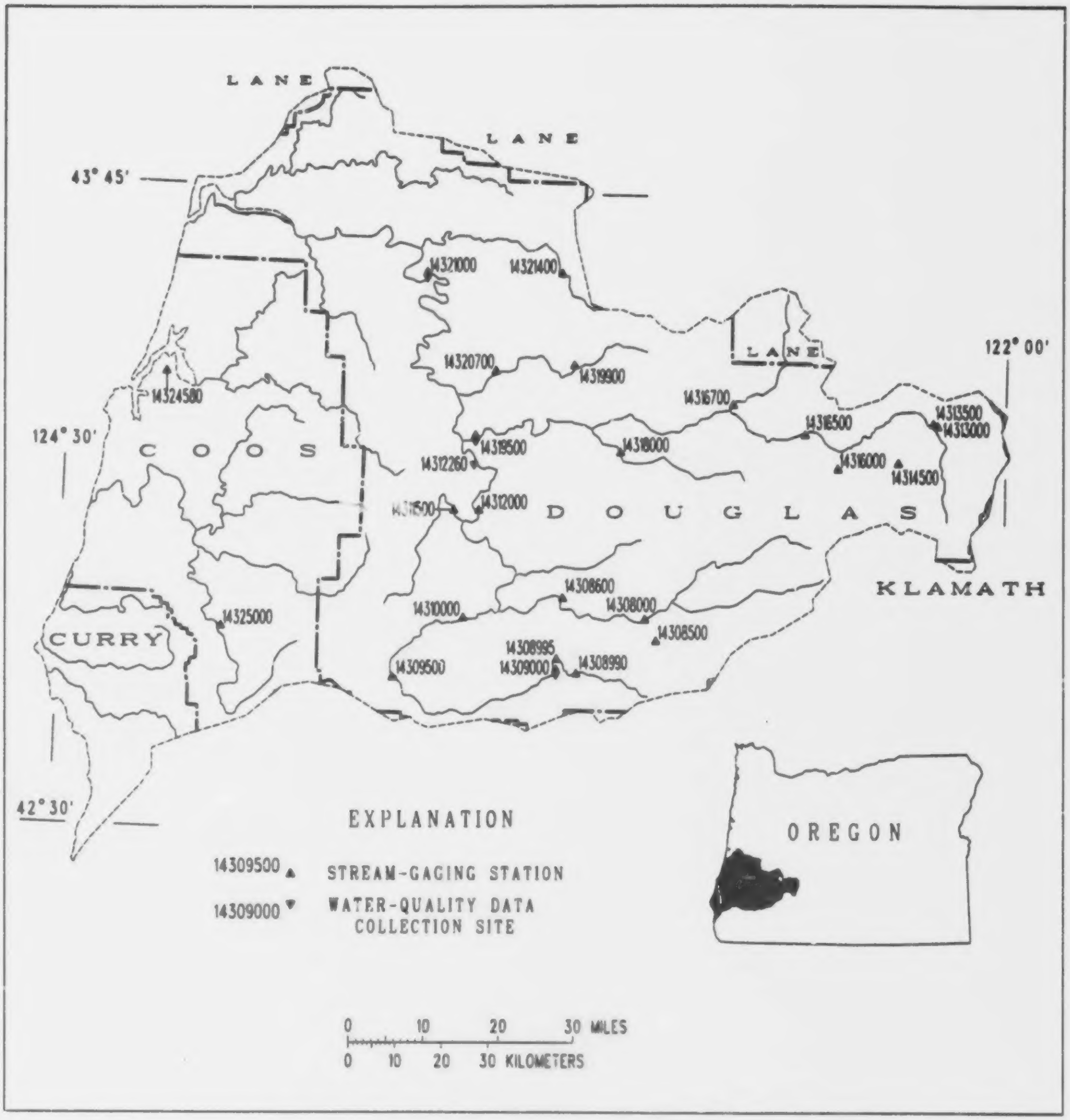
K - Results based on colony count outside acceptable range (non-ideal colony count).

14307620 SIUSLAW RIVER NEAR MAPLETON, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV										
25...	--	<1	14	1.0	1	<1	<3	6	--	5
FEB										
26...	40	<1	9	<0.5	<1	<1	<3	1	76	<5
MAY										
28...	20	<1	9	<0.5	<1	<1	<3	3	120	<5
SEP										
01...	10	<1	10	<0.5	<1	<1	<3	2	100	5

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
25...	4	--	0.1	<10	<1	<1	<1	34	<6	--
FEB										
26...	<4	5	0.1	<10	<1	<1	<1	32	<6	6
MAY										
28...	<4	4	<0.1	<10	3	<1	<1	40	<6	9
SEP										
01...	<4	7	<0.1	<10	5	<1	1	45	<6	19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43° 45'
14321000
14321400
14320700
14319900
LANE
122° 00'
14324580
14316700
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124° 30'
COOS
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14311500
14312000
DOUGLAS
KLAMATH
14308600
14310000
14308000
14325000
14308500
CURRY
14308995
14309000
14308990
14309500
42° 30'
OREGON
EXPLANATION
14309500 ▲ STREAM-GAGING STATION
14309000 ▼ WATER-QUALITY DATA COLLECTION SITE
0 10 20 30 MILES
0 10 20 30 KILOMETERS

Figure 6.--Location of surface-water and water-quality stations in the Umpqua River, Coos River, and Coquille River basins.

14308000 SOUTH UMPQUA RIVER AT TILLER, OR

LOCATION.--Lat 42°55′50″, long 122°56′50″, in NE 1/4 sec.33, T.30 S., R.2 W., Douglas County, Hydrologic Unit 17100302, Umpqua National Forest, on left bank 0.3 mi upstream from bridge on State Highway 227 at Tiller, 0.3 mi upstream from Elk Creek, and at mile 187.31.

DRAINAGE AREA.--449 mi^2.

PERIOD OF RECORD.--October 1910 to December 1911, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to December 1911, published as South Fork of Umpqua River at Tiller.

REVISED RECORDS.--WSP 1448: 1911(M), 1912, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 991.8 ft above National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Oct. 1, 1939, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 27, 28, 30, 31, Nov. 21, 22, 26-28, Jan. 1-3, 24-26, Feb. 1, 2, 13, 14. Records good except for estimated daily discharges, which are fair. No regulation. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--49 years, 1,041 ft^3/s, 31.48 in/yr, 754,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,200 ft^3/s Dec. 22, 1964, gage height, 25.72 ft; minimum discharge observed, 20 ft^3/s Sept. 3, 4, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	1200	7,520	9.00	Feb. 2	unknown	*10,100	10.50
Nov. 28	1200	(a)	9.20	Feb. 2	unknown	(b)	*10.89
Jan. 25	unknown	unknown	unknown				

Minimum discharge, 35 ft^3/s Sept. 24-26.

(a) From outside high-water mark.
(b) From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	499	544	1780	1940	4390	664	857	560	200	77	103	46
2	405	401	1410	3490	7370	642	877	533	167	80	98	46
3	338	324	1160	2690	4090	661	886	512	154	73	94	46
4	297	271	1010	2110	2770	793	835	481	143	69	89	43
5	272	232	962	1560	2090	1020	769	467	134	67	82	43
6	255	210	901	1220	1710	1320	719	482	130	67	78	43
7	233	354	796	996	1500	1110	674	488	128	67	75	42
8	211	708	716	839	1340	972	689	471	126	66	74	42
9	190	1170	648	726	1220	912	689	448	121	64	71	42
10	177	1460	587	651	1120	826	679	413	118	64	67	42
11	163	888	536	613	1090	809	833	377	112	63	65	42
12	150	672	523	595	1050	1020	783	343	109	63	64	42
13	141	559	520	595	1580	1540	720	319	105	61	64	42
14	133	490	650	595	2340	1580	681	295	100	56	64	43
15	128	446	571	590	1960	1650	673	277	100	55	65	43
16	125	387	525	532	1800	1430	664	262	103	53	62	41
17	123	365	482	496	1760	1420	681	244	107	52	61	40
18	128	403	456	488	1770	1970	689	230	103	251	60	40
19	133	719	454	462	1640	1990	629	216	98	639	58	39
20	124	720	440	433	1400	1720	587	205	94	259	56	39
21	118	2170	411	420	1260	1470	568	196	100	199	54	38
22	112	5300	432	419	1120	1290	591	185	117	646	53	38
23	110	3770	559	421	1080	1650	634	179	99	535	54	38
24	110	2450	701	1360	1000	1830	625	183	92	296	54	36
25	107	1960	788	5280	899	1580	601	193	88	220	51	35
26	104	1770	827	7460	811	1400	579	186	85	180	50	35
27	160	2670	879	4650	747	1210	601	180	80	153	49	36
28	223	6040	768	4400	699	1070	653	172	78	136	47	37
29	166	4040	696	2960	---	963	631	162	75	125	47	38
30	474	2440	678	2240	---	883	590	155	73	117	47	36
31	692	---	641	1940	---	852	---	182	---	110	46	---
TOTAL	6601	43933	22507	53171	51606	38247	20687	9596	3339	4963	2002	1213
MEAN	213	1464	726	1715	1843	1234	690	310	111	160	64.6	40.4
MAX	692	6040	1780	7460	7370	1990	886	560	200	646	103	46
MIN	104	210	411	419	699	642	568	155	73	52	46	35
AC-FT	13090	87140	44640	105500	102400	75860	41030	19030	6620	9840	3970	2410
CFSM	.47	3.26	1.62	3.82	4.10	2.75	1.54	.69	.25	.36	.14	.09
IN.	.55	3.64	1.86	4.41	4.28	3.17	1.71	.80	.28	.41	.17	.10

CAL YR 1986 TOTAL 382233 MEAN 1047 MAX 22600 MIN 47 AC-FT 758200 CFSM 2.33 IN. 31.67
WTR YR 1987 TOTAL 257865 MEAN 706 MAX 7460 MIN 35 AC-FT 511500 CFSM 1.57 IN. 21.36

14308500 ELK CREEK NEAR DREW, OR

LOCATION.--Lat 42°53'25", long 122°55'00", in SW 1/4 sec.11, T.31 S., R.2 W., Douglas County, Hydrologic Unit 17100302, on right bank 100 ft downstream from Dixon Creek, 0.1 mi upstream from Drew Creek, 1.3 mi northwest of Drew, 3.3 mi southeast of Tiller, and at mile 4.1.

DRAINAGE AREA.--54.4 mi^2.

PERIOD OF RECORD.--September 1954 to September 1982, October 1986 to September 1987.

GAGE.--Water-stage recorder. Datum of gage is 1,279.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation. Several diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--29 years (1955-82, 1987), 83.1 ft^3/s, 20.74 in/yr, 60,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft^3/s Dec. 22, 1964, gage height, 10.61 ft, from rating curve extended above 2,900 ft^3/s on basis of slope-area measurement at gage height 10.34 ft; maximum gage height, 10.80 ft Jan. 15, 1974; no flow at times in September 1974, Aug. 16-22, 1977, Aug. 17-24, Sept. 16-19, 1981, Sept. 7, 8, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 11.8 ft, from floodmarks, probably for flood in January or November 1953, discharge, about 11,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	2300	1,620	6.65	Feb. 2	0230	*2,260	*7.29

Minimum discharge, no flow for part of each day Sept. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	14	89	313	627	69	53	12	6.6	.47	1.5	.13
2	9.5	11	70	271	1250	66	49	12	5.4	.51	1.5	.21
3	8.1	8.6	56	321	420	71	47	11	4.4	.49	1.2	.35
4	7.1	7.4	48	209	251	77	44	10	3.4	.40	1.1	.24
5	6.3	6.6	47	139	178	94	39	9.6	2.7	.39	.92	.14
6	5.8	6.4	44	100	136	105	36	8.9	2.5	.35	.74	.07
7	5.2	45	39	77	109	87	33	8.1	2.6	.33	.70	.01
8	4.7	67	34	63	91	77	30	7.5	2.6	.33	.63	.04
9	4.4	68	30	52	79	79	27	7.4	2.2	.46	.56	.16
10	4.3	74	24	45	72	72	26	6.9	2.2	.42	.56	.20
11	3.9	48	22	39	71	72	28	6.1	2.2	.46	.54	.11
12	3.6	33	22	37	67	113	25	5.9	1.7	.46	.49	.21
13	3.4	24	21	42	258	144	23	6.0	1.3	.32	.44	.27
14	3.4	20	22	45	295	146	22	5.8	1.1	.19	.37	.47
15	3.3	16	21	42	234	166	19	5.9	1.3	.10	.45	.59
16	3.1	14	20	34	198	171	17	6.2	2.0	.17	.39	.61
17	3.7	12	18	31	167	181	18	6.1	2.3	.20	.41	.52
18	4.4	11	17	28	160	241	23	6.2	1.7	2.7	.37	.39
19	4.2	12	17	24	135	220	24	5.7	1.4	8.5	.34	.38
20	3.7	17	18	22	112	176	23	5.5	1.2	6.0	.30	.38
21	3.5	106	17	21	103	140	22	5.2	1.2	4.4	.25	.33
22	3.4	284	35	23	94	114	20	4.7	1.2	35	.26	.31
23	3.2	150	80	36	103	140	18	4.5	1.2	19	.31	.27
24	3.4	108	74	163	100	145	17	5.6	.96	9.8	.42	.23
25	3.3	114	69	604	91	128	15	6.5	.81	6.9	.39	.32
26	3.3	98	57	787	80	111	14	6.2	.71	5.5	.22	.57
27	5.2	113	49	420	74	94	13	6.4	.58	4.3	.20	.54
28	5.6	311	40	360	70	81	12	6.1	.49	3.3	.21	.53
29	6.3	211	41	244	---	72	12	5.5	.40	2.8	.21	.58
30	30	127	45	186	---	64	12	5.1	.43	2.5	.24	.57
31	21	---	48	155	---	57	---	6.5	---	2.0	.18	---
TOTAL	191.5	2137.0	1234	4933	5625	3573	761	215.1	58.78	118.75	16.40	9.73
MEAN	6.18	71.2	39.8	159	201	115	25.4	6.94	1.96	3.83	.53	.32
MAX	30	311	89	787	1250	241	53	12	6.6	35	1.5	.61
MIN	3.1	6.4	17	21	67	57	12	4.5	.40	.10	.18	.01
AC-FT	380	4240	2450	9780	11160	7090	1510	427	117	236	33	19
CFSM	.11	1.31	.73	2.93	3.69	2.12	.47	.13	.04	.07	.01	.01
IN.	.13	1.46	.84	3.37	3.85	2.44	.52	.15	.04	.08	.01	.01

WTR YR 1987 TOTAL 18873.26 MEAN 51.7 MAX 1250 MIN .01 AC-FT 37440 CFSM .95 IN. 12.91

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR

LOCATION.--Lat 42°58'05", long 123°09'60", in NW 1/4 sec.15, T.30 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on left bank 0.3 mi upstream from Days Creek, 0.4 mi southeast of community of Days Creek, and at mile 170.2.

DRAINAGE AREA.--641 mi^2.

PERIOD OF RECORD.--March 1975 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 738.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. No regulation. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--12 years, 1,180 ft^3/s, 25.00 in/yr, 854,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,300 ft^3/s Dec. 6, 1981, gage height, 22.39 ft; minimum discharge, 31 ft^3/s Sept. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 26	0200	12,700	12.35	Feb. 2	0400	*13,000	*12.49

Minimum discharge, 32 ft^3/s Sept. 23-27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	622	695	2110	1950	5020	828	957	585	264	82	138	43
2	498	508	1670	4240	10100	788	969	563	233	96	128	44
3	416	405	1370	3220	5120	803	984	536	210	88	121	42
4	359	342	1150	2670	3380	959	936	510	195	82	114	41
5	327	301	1070	2010	2550	1130	842	491	179	78	104	41
6	309	272	1000	1550	2090	1560	781	502	171	75	95	42
7	286	462	882	1240	1820	1310	732	511	169	73	90	39
8	260	987	778	1010	1620	1130	723	496	167	71	91	38
9	235	1250	700	864	1460	1070	733	478	161	70	87	38
10	216	1810	638	756	1330	957	706	444	157	70	78	38
11	202	1160	587	699	1310	907	874	411	151	71	75	38
12	184	872	566	689	1220	1100	831	387	145	69	72	38
13	171	719	552	731	1870	1740	760	370	140	63	71	41
14	162	627	670	715	2870	1770	713	348	132	59	70	43
15	156	576	623	722	2390	1970	698	327	126	54	73	43
16	151	497	577	644	2200	1760	686	319	129	50	72	41
17	151	456	535	605	2150	1680	695	301	140	53	67	39
18	165	492	506	582	2230	2370	741	289	138	132	65	38
19	168	768	509	547	2020	2500	695	273	130	658	63	38
20	152	829	493	513	1750	2170	637	261	124	373	61	38
21	143	3600	465	491	1600	1860	608	252	122	264	59	35
22	137	6390	479	497	1420	1610	615	242	150	566	57	33
23	134	4310	671	579	1430	1870	653	234	136	694	57	33
24	133	2780	791	1370	1350	2190	653	230	122	393	59	32
25	132	2350	948	5520	1210	1920	624	253	114	300	56	33
26	131	2090	972	9490	1070	1700	600	248	108	252	52	32
27	183	3420	1010	5310	964	1470	611	238	102	216	50	33
28	318	7110	874	5160	884	1280	658	230	95	190	49	35
29	231	4920	783	3490	---	1140	649	220	90	170	48	36
30	521	2860	773	2640	---	1020	613	209	86	156	47	35
31	818	---	725	2230	---	963	---	220	---	145	45	---
TOTAL	8071	53858	25477	62734	64428	45525	21977	10978	4386	5713	2314	1140
MEAN	260	1795	822	2024	2301	1469	733	354	146	184	74.6	38.0
MAX	818	7110	2110	9490	10100	2500	984	585	264	694	138	44
MIN	131	272	465	491	884	788	600	209	86	50	45	32
AC-FT	16010	106800	50530	124400	127800	90300	43590	21770	8700	11330	4590	2260
CFSM	.41	2.80	1.28	3.16	3.59	2.29	1.14	.55	.23	.29	.12	.06
IN.	.47	3.13	1.48	3.64	3.74	2.64	1.28	.64	.25	.33	.13	.07

CAL YR 1986 TOTAL 444325 MEAN 1217 MAX 24400 MIN 41 AC-FT 881300 CFSM 1.90 IN. 25.79
WTR YR 1987 TOTAL 306601 MEAN 840 MAX 10100 MIN 32 AC-FT 608100 CFSM 1.31 IN. 17.79

14308990 COW CREEK ABOVE GALESVILLE RESERVOIR, NEAR AZALEA, OR

LOCATION.--Lat 42°49'24", long 123°07'29", in SW 1/4 NW 1/4 sec.1, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on left bank, about 600 ft upstream from bridge on Houck Ranch Road (BLM), 1.1 mi downstream from Sugar Creek, 3.2 mi south of Galesville Dam, 6.9 mi northeast of Azalea, and at mile 65.6

DRAINAGE AREA.--64.7 mi^2.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,900 ft, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 16-21. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 2,610 ft^3/s Feb. 2, 1987, gage height 6.89 ft; minimum discharge, 5.1 ft^3/s Sept. 4, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1927 occurred Jan. 15, 1974. Stage and discharge not known at this site, but was 10,600 ft^3/s at site 7.4 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	2300	1,250	4.62	Feb. 2	0300	*2,610	*6.89

Minimum discharge, 5.1 ft^3/s Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	26	73	287	542	86	78	34	23	9.7	11	5.8
2	18	21	59	254	1500	84	74	33	20	9.9	10	6.0
3	16	19	50	372	540	98	80	31	18	9.7	9.9	5.5
4	16	17	45	229	336	103	73	30	17	9.8	9.7	5.5
5	15	17	45	146	248	124	67	29	17	9.8	9.1	5.8
6	15	17	42	110	196	126	62	28	16	9.5	8.9	5.7
7	14	36	38	88	164	109	60	27	16	9.6	8.8	5.6
8	14	47	35	74	142	103	57	26	18	9.5	8.8	5.8
9	14	39	33	65	126	114	53	28	16	9.9	8.3	5.9
10	14	45	31	59	113	101	52	25	16	9.5	8.1	5.9
11	14	36	29	54	108	98	54	24	15	9.3	8.4	6.0
12	13	30	29	54	104	144	51	23	15	8.6	8.2	6.5
13	13	26	32	55	285	173	48	23	14	8.5	8.2	7.1
14	14	24	37	52	314	167	46	22	14	7.9	8.4	7.1
15	13	24	32	49	259	163	44	22	14	7.5	8.4	6.7
16	13	22	30	42	224	158	43	23	16	7.2	8.4	6.5
17	13	21	29	40	189	163	44	22	16	9.4	8.0	6.8
18	13	20	28	38	173	200	49	22	14	16	7.8	7.0
19	13	23	31	38	152	191	48	21	14	23	7.5	6.8
20	13	27	30	36	135	172	48	21	13	14	7.2	6.8
21	13	81	28	35	129	150	45	21	13	14	7.4	6.6
22	13	251	46	36	120	133	42	20	13	38	7.2	6.8
23	13	107	98	43	123	152	40	20	12	21	7.8	6.5
24	13	74	69	148	112	145	38	20	12	14	7.4	6.0
25	13	86	61	512	104	132	37	21	11	13	7.0	6.6
26	13	66	53	711	95	122	36	21	11	12	6.8	7.3
27	21	89	47	373	91	112	34	21	11	11	6.7	7.5
28	18	268	43	349	88	104	33	20	11	11	6.5	8.4
29	22	175	47	232	---	96	33	20	10	11	6.4	7.8
30	66	99	47	180	---	89	33	19	9.9	11	6.3	7.2
31	37	---	45	152	---	83	---	24	---	11	6.0	---
TOTAL	530	1833	1342	4913	6712	3995	1502	741	435.9	375.3	248.6	195.5
MEAN	17.1	61.1	43.3	158	240	129	50.1	23.9	14.5	12.1	8.02	6.52
MAX	66	268	98	711	1500	200	80	34	23	38	11	8.4
MIN	13	17	28	35	88	83	33	19	9.9	7.2	6.0	5.5
AC-FT	1050	3640	2660	9740	13310	7920	2980	1470	865	744	493	388
CFSM	.26	.94	.67	2.45	3.71	1.99	.77	.37	.22	.19	.12	.10
IN.	.30	1.05	.77	2.82	3.86	2.30	.86	.43	.25	.22	.14	.11

CAL YR 1986 TOTAL 28792.5 MEAN 78.9 MAX 1710 MIN 7.2 AC-FT 57110 CFSM 1.22 IN. 16.55
WTR YR 1987 TOTAL 22823.3 MEAN 62.5 MAX 1500 MIN 5.5 AC-FT 45270 CFSM .97 IN. 13.12

14308995 GALESVILLE RESERVOIR NEAR AZALEA, OR

LOCATION.--Lat 42°50'56", long 123°10'40", in NE 1/4 sec.28, T.31 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on the upstream face of Galesville dam to the right side of the spillway section, 1.2 mi downstream from McGinnis Creek, 5.6 mi northeast of Azalea, and at mile 60.2.

DRAINAGE AREA.--74.3 mi^2.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage encoder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Douglas County).

REMARKS.--Reservoir is formed by a roller compacted concrete dam; storage began Oct. 7, 1985. Capacity, 42,220 acre-ft between elevations 1,780.0 ft (bottom of evacuation outlet) and 1,881.5 ft (crest of spillway). Dead storage, 1,800 acre-ft below elevation 1,780.0 ft. Reservoir is used for irrigation, power generation, flood control, and recreation. Figures given herein represent total contents.

COOPERATION.--Elevations and capacity table furnished by Douglas County Water Resources Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents recorded, 37,870 acre-ft Apr. 5, 1987, elevation, 1,875.00 ft; minimum contents, 19,910 acre-ft Nov. 20, 1986, elevation, 1,840.19 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 37,870 acre-ft Apr. 5, elevation, 1,875.00 ft; minimum contents, 19,920 acre-ft Nov. 20, elevation, 1,840.19 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

1,780	1,800	1,820	11,970	1,860	29,500
1,790	3,595	1,830	15,680	1,870	35,000
1,800	5,900	1,840	19,840	1,880	40,960
1,810	8,710	1,850	24,450	1,885	44,160

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1845.72	1842.86	1842.30	1842.63	1851.91	1866.05	1874.43	---	1872.91	1865.99	1859.34	1853.24
2	1845.67	1842.69	1841.75	1843.49	1857.01	1866.18	1874.56	---	1872.88	1865.73	1859.15	1853.03
3	1845.60	1842.50	1841.20	1844.83	1857.96	1866.36	1874.76	---	1872.82	1865.45	1858.97	1852.85
4	1845.54	1842.30	1841.01	1845.51	1859.11	1866.60	1874.87	---	1872.72	1865.18	1858.78	1852.60
5	1845.47	1842.10	1840.91	1845.82	1859.85	1866.93	1874.92	---	1872.59	1864.91	1858.59	1852.37
6	1845.41	1841.91	1840.84	1845.72	1860.40	1867.19	---	---	1872.46	1864.64	1858.40	1852.17
7	1845.34	1841.89	1840.74	1845.46	1860.84	1867.39	---	1874.03	1872.32	1864.36	1858.21	1851.97
8	1845.26	1841.84	1840.65	1845.55	1861.18	1867.59	---	1874.01	1872.14	1864.10	1858.01	1851.76
9	1845.18	1841.79	1840.60	1845.57	1861.47	1867.80	---	1873.98	1871.97	1863.83	1857.82	1851.56
10	1845.12	1841.72	1840.58	1845.57	1861.72	1867.97	---	1873.94	1871.77	1863.56	1857.62	1851.37
11	1845.04	1841.61	1840.56	1845.57	1861.94	1868.13	---	1873.90	1871.52	1863.28	1857.43	1851.16
12	1844.96	1841.46	1840.53	1845.60	1862.13	1868.45	---	1873.86	1871.24	1863.01	1857.23	1850.96
13	1844.87	1841.31	1840.56	1845.65	1862.89	1868.87	---	1873.81	1870.92	1862.69	1857.03	1850.78
14	1844.81	1841.17	1840.59	1845.67	1863.43	1869.28	---	1873.76	1870.59	1862.33	1856.83	1850.57
15	1844.72	1841.00	1840.58	1845.70	1863.93	1869.67	---	1873.69	1870.27	1861.97	1856.63	1850.38
16	1844.66	1840.83	1840.56	1845.66	1864.27	1870.02	---	1873.63	1869.96	1861.66	1856.44	1850.18
17	1844.59	1840.66	1840.53	1845.62	1864.54	1870.41	---	1873.58	1869.65	1861.47	1856.24	1849.98
18	1844.53	1840.50	1840.52	1845.57	1864.91	1870.95	---	1873.51	1869.33	1861.42	1856.05	1849.78
19	1844.45	1840.33	1840.51	1845.50	1865.16	1871.44	---	1873.45	1869.01	1861.34	1855.85	1849.57
20	1844.38	1840.24	1840.49	1845.41	1865.31	1871.85	---	1873.39	1868.68	1861.19	1855.65	1849.33
21	1844.31	1840.36	1840.48	1845.31	1865.38	1872.19	---	1873.33	1868.40	1861.09	1855.45	1849.13
22	1844.18	1841.24	1840.60	1845.21	1865.42	1872.47	---	1873.28	1868.18	1861.07	1855.25	1848.96
23	1843.95	1841.48	1840.89	1845.14	1865.45	---	---	1873.24	1867.97	1860.94	1855.06	1848.79
24	1843.76	1841.61	1841.07	1845.53	1865.43	---	---	1873.20	1867.76	1860.77	1854.86	1848.62
25	1843.58	1841.76	1841.22	1847.22	1865.50	---	---	1873.18	1867.55	1860.61	1854.66	1848.41
26	1843.43	1841.80	1841.30	---	1865.65	---	---	1873.15	1867.30	1860.43	1854.46	1848.24
27	1843.30	1841.95	1841.37	---	1865.80	---	---	1873.10	1867.04	1860.25	1854.26	1848.08
28	1843.13	1842.81	1841.41	---	1865.93	---	---	1873.06	1866.77	1860.07	1854.05	1847.90
29	1843.06	1842.97	1841.48	---	---	---	---	1873.01	1866.52	1859.89	1853.86	1847.73
30	1843.12	1842.74	1841.52	---	---	1874.23	---	1872.97	1866.25	1859.71	1853.66	1847.57
31	1843.02	---	1841.58	---	---	1874.37	---	1872.95	---	1859.52	1853.46	---
MAX	1845.72	1842.97	1842.30	---	1865.93	---	---	---	1872.91	1865.99	1859.34	1853.24
MIN	1843.02	1840.24	1840.48	---	1851.91	---	---	---	1866.25	1859.52	1853.46	1847.57
(†)	21140	21010	20510	a25070	32650	37490	a37390	36660	32830	29240	26090	23240
(‡)	-1260	-130	-500	+4560	+7580	+4840	-100	-730	-3830	-3590	-3150	-2850

CAL YR 1986 AC-FT‡ +17930
WTR YR 1987 AC-FT‡ +840

† Contents in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.
a Month-end contents determined from interpolated elevations.

SOUTH UMPQUA RIVER BASIN

14309000 COW CREEK NEAR AZALEA, OR

LOCATION.--Lat 42°49'30", long 123°10'40", in N-1/2 sec.4, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.8 mi upstream from Whitehorse Creek, 4.5 mi northeast of Azalea, and at mile 58.2.

DRAINAGE AREA.--78.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1926 to September 1928 (no winter records), April 1929 to December 1931, April 1932 to current year.

REVISED RECORDS.--WSP 984: 1933-36. WSP 1154: 1946(M), 1948(M). WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,694.32 ft above National Geodetic Vertical Datum of 1929 (Douglas County Road Department bench mark). Prior to July 19, 1949, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since Oct. 7, 1985 by Galesville Reservoir (station 14308995). Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--57 years (water years 1930-31, 1933-87), 111 ft^3/s, 19.33 in/yr, 80,420 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s Jan. 15, 1974, gage height, 16.40 ft, from high-water mark in well; minimum discharge, 1.1 ft^3/s Aug. 12, 1981, but may have been less during period of no gage-height record Sept. 4-30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 583 ft^3/s Feb. 2, gage height, 4.04 ft; minimum discharge, 5.8 ft^3/s Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	64	191	66	94	63	67	43	35	74	56	58
2	29	64	202	74	356	62	67	43	34	80	55	52
3	29	64	188	82	317	63	70	45	35	79	55	44
4	29	64	95	87	55	52	65	43	45	79	55	62
5	29	63	73	84	67	38	65	42	53	80	54	56
6	29	62	61	145	63	63	64	42	57	79	54	54
7	29	66	61	158	62	63	61	42	63	79	53	51
8	29	64	55	57	62	64	59	38	70	79	53	[illegible]
9	30	64	43	68	61	64	62	38	67	81	53	50
10	31	64	36	64	58	63	68	38	72	81	53	50
11	31	62	34	57	61	65	66	38	80	80	53	49
12	31	62	34	54	64	63	58	38	92	80	53	49
13	31	64	35	49	89	63	58	38	104	92	53	49
14	30	62	35	52	180	65	58	40	105	100	53	49
15	31	61	34	43	135	66	50	45	103	99	53	49
16	31	61	34	51	146	66	52	39	103	87	53	49
17	32	60	34	56	129	66	46	39	103	67	53	48
18	32	61	34	56	87	67	46	41	103	43	52	47
19	31	61	33	55	91	68	47	39	103	46	51	52
20	31	62	32	57	104	68	47	39	103	55	52	61
21	31	66	32	62	130	67	50	41	92	58	52	52
22	42	72	33	60	131	67	47	34	74	59	51	43
23	69	64	33	59	136	67	46	34	72	58	52	43
24	58	65	35	61	136	67	45	34	72	57	51	43
25	57	64	37	80	102	67	45	35	73	57	52	52
26	58	76	37	315	66	66	45	36	77	57	52	43
27	58	92	37	373	63	67	45	35	79	57	52	43
28	57	142	36	357	64	66	44	35	79	56	51	43
29	58	174	37	266	---	66	43	35	79	56	51	43
30	59	177	36	64	---	66	43	35	79	55	51	43
31	61	---	39	66	---	66	---	36	---	56	52	---
TOTAL	1212	2247	1736	3178	3109	1984	1629	1200	2306	2167	1634	1480
MEAN	39.1	74.9	56.0	103	111	64.0	54.3	38.7	76.9	69.9	52.7	49.3
MAX	69	177	202	373	356	68	70	45	105	100	56	62
MIN	29	60	32	43	55	38	43	34	34	43	51	43
AC-FT	2400	4460	3440	6300	6170	3940	3230	2380	4570	4300	3240	2940
MEAN†	18.5	72.8	47.8	177	248	143	52.6	26.8	12.4	11.5	1.46	1.51
CFSM†	0.24	0.93	0.61	2.27	3.18	1.83	0.67	0.34	0.16	0.15	0.02	0.02
IN.†	0.27	1.04	0.71	2.61	3.31	2.11	0.75	0.40	0.18	0.17	0.02	0.02
AC-FT†	1140	4330	2940	10860	13750	8780	3130	1650	740	710	90	90

CAL YR 1986 TOTAL 22694 MEAN 62.2 MAX 703 MIN 13 AC-FT 45010 MEAN† 87.0 CFSM† 1.12 IN.† 15.14 AC-FT† 62950
WTR YR 1987 TOTAL 23882 MEAN 65.4 MAX 373 MIN 29 AC-FT 47370 MEAN† 66.6 CFSM† 0.85 IN.† 11.59 AC-FT† 48210

† Adjusted for change in contents in Galesville Reservoir.

14309000 COW CREEK NEAR AZALEA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
DISSOLVED OXYGEN: November 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--
DISSOLVED OXYGEN: Maximum recorded, 13.6 mg/l Nov. 27, 1985; minimum, 2.7 mg/l Sept. 30, 1987.

EXTREMES FOR CURRENT YEAR.--
DISSOLVED OXYGEN: Maximum, 12.1 mg/l Jan. 19, 20; minimum, 2.7 mg/l Sept. 30.

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.5	9.3	9.4	10.0	9.7	9.8	---	---	---	11.4	11.1	11.2
2	9.6	4.4	9.2	10.2	9.8	10.0	---	---	---	11.5	11.0	11.3
3	9.7	9.4	9.5	10.2	9.8	10.0	---	---	---	11.3	11.0	11.1
4	9.7	9.3	9.5	10.2	9.9	10.0	---	---	---	11.5	11.1	11.3
5	9.6	9.2	9.4	10.2	10.0	10.1	---	---	---	11.5	11.2	11.3
6	9.5	9.1	9.3	10.3	10.0	10.2	---	---	---	11.6	4.0	11.1
7	9.4	3.1	8.9	10.3	9.9	10.1	---	---	---	11.7	11.3	11.5
8	9.3	8.8	9.0	10.4	10.1	10.2	---	---	---	11.9	11.5	11.7
9	9.0	8.7	8.9	10.4	10.1	10.2	---	---	---	11.8	10.9	11.5
10	9.0	8.8	8.9	10.5	10.2	10.4	---	---	---	11.5	11.0	11.2
11	9.1	8.6	8.9	10.6	10.2	10.4	---	---	---	11.5	11.0	11.2
12	9.0	8.6	8.8	10.6	10.2	10.4	---	---	---	11.3	4.8	10.7
13	9.1	8.7	8.9	10.5	2.9	10.0	---	---	---	11.7	4.5	11.1
14	9.2	8.8	9.0	10.5	10.3	10.4	---	---	---	11.7	11.2	11.4
15	9.1	8.7	8.9	10.6	10.4	10.5	---	---	---	11.9	11.3	11.6
16	9.1	4.5	8.8	10.9	10.5	10.7	---	---	---	11.9	11.4	11.6
17	9.4	9.1	9.2	11.0	10.6	10.8	---	---	---	12.0	11.5	11.7
18	9.5	9.3	9.4	10.9	10.6	10.7	---	---	---	12.0	11.5	11.7
19	9.6	9.3	9.5	11.0	10.6	10.8	---	---	---	12.1	11.6	11.8
20	9.6	9.3	9.5	10.8	3.8	10.3	---	---	---	12.1	11.4	11.7
21	9.8	9.0	9.5	10.8	10.4	10.6	---	---	---	11.9	11.4	11.7
22	9.4	9.1	9.2	10.8	10.5	10.6	---	---	---	11.9	11.4	11.7
23	9.4	9.1	9.3	10.8	10.4	10.6	11.2	3.5	10.7	11.5	10.7	11.2
24	9.3	9.1	9.2	10.7	10.5	10.6	11.3	3.7	10.8	11.3	10.8	11.1
25	9.3	9.0	9.2	10.9	10.5	10.7	11.3	10.8	11.2	11.3	11.0	11.1
26	9.3	9.1	9.3	10.8	10.0	10.4	11.4	11.1	11.2	11.4	11.0	11.2
27	9.5	9.3	9.4	10.1	9.9	10.0	11.5	11.2	11.4	11.4	10.9	11.2
28	9.7	9.4	9.5	10.4	9.3	9.9	11.7	11.2	11.4	11.4	10.9	11.2
29	9.6	9.5	9.6	9.7	9.4	9.5	11.5	11.2	11.4	11.3	10.9	11.0
30	9.8	9.6	9.7	9.7	9.0	9.4	11.6	11.1	11.4	11.4	11.0	11.2
31	9.9	9.6	9.8	---	---	---	11.4	11.1	11.2	11.4	7.6	10.5
MONTH	9.9	3.1	9.3	11.0	2.9	10.3	---	---	---	12.1	4.0	11.3

14309000 COW CREEK NEAR AZALEA, OR--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.4	8.0	10.6	10.3	9.5	10.0	11.3	10.0	10.5	9.6	8.6	8.9
2	11.3	8.2	11.0	10.3	9.8	10.1	11.0	9.4	10.1	8.7	8.2	8.6
3	11.4	10.8	11.2	10.4	10.0	10.1	11.0	9.3	10.1	8.7	8.3	8.6
4	11.5	8.9	10.5	10.6	7.5	9.7	9.9	9.3	9.7	8.9	8.3	8.6
5	11.5	8.8	9.6	10.7	6.5	8.7	9.9	9.3	9.6	8.8	8.4	8.6
6	9.5	9.0	9.2	10.5	10.1	10.3	9.9	9.3	9.6	8.5	8.1	8.3
7	9.5	9.0	9.2	10.5	10.0	10.3	10.4	9.4	9.8	8.4	7.9	8.2
8	9.2	8.3	9.0	10.5	9.8	10.2	10.5	9.1	9.4	8.5	8.0	8.2
9	9.1	8.5	8.8	10.7	9.8	10.3	10.8	8.9	9.5	8.5	7.9	8.2
10	10.6	8.3	9.7	11.8	9.8	10.4	10.7	7.8	9.4	8.5	8.0	8.2
11	11.1	9.3	10.1	11.1	10.0	10.6	9.6	8.8	9.3	8.5	7.8	8.2
12	10.6	9.0	9.5	11.1	10.2	10.7	9.6	9.0	9.4	8.5	7.9	8.1
13	10.9	8.6	9.7	11.0	9.7	10.3	9.8	9.0	9.4	8.4	7.7	8.1
14	10.7	10.0	10.4	10.5	10.1	10.3	10.6	7.9	9.4	8.5	7.7	8.1
15	10.5	9.3	10.3	10.6	10.2	10.3	9.6	8.9	9.3	8.1	7.6	7.8
16	10.5	10.1	10.3	10.9	10.2	10.5	10.0	9.0	9.3	8.3	7.8	8.1
17	10.5	10.2	10.3	11.0	10.1	10.4	9.5	8.9	9.2	8.3	7.8	8.0
18	11.4	10.3	11.2	10.6	10.2	10.4	9.4	9.1	9.2	9.1	7.9	8.2
19	11.6	9.6	10.9	10.7	10.0	10.4	9.5	8.9	9.2	8.4	7.6	8.0
20	11.3	9.4	9.8	10.7	10.0	10.5	9.5	8.9	9.2	8.9	7.5	8.1
21	9.7	9.1	9.4	10.6	10.0	10.3	10.3	8.9	9.3	10.3	7.8	8.3
22	9.6	9.4	9.5	10.6	9.9	10.2	9.4	8.9	9.2	8.4	7.8	8.1
23	9.4	9.0	9.2	10.5	10.1	10.3	9.4	9.0	9.2	8.3	7.8	8.1
24	9.8	8.7	9.3	10.7	9.8	10.3	9.4	8.9	9.2	8.2	7.7	7.9
25	11.6	9.7	10.3	10.7	9.6	10.3	9.3	8.7	9.1	8.1	7.7	7.9
26	11.6	10.0	10.5	10.7	9.7	10.3	9.3	8.8	9.0	8.1	7.4	7.8
27	10.8	10.1	10.5	10.7	9.8	10.3	9.2	8.6	9.0	8.0	7.6	7.8
28	10.3	9.7	10.1	10.6	9.9	10.3	9.1	8.8	8.9	8.1	7.4	7.8
29	---	---	---	10.6	9.9	10.3	9.2	8.6	8.9	8.1	7.6	7.8
30	---	---	---	10.5	9.8	10.2	9.0	8.6	8.8	8.0	7.5	7.7
31	---	---	---	10.5	10.0	10.3	---	---	---	8.0	7.4	7.8
MONTH	11.6	8.0	10.0	11.8	6.5	10.3	11.3	7.8	9.4	10.3	7.4	8.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.0	7.4	7.7	10.4	3.6	4.5	5.5	4.4	5.0	7.6	3.9	5.5
2	7.8	7.2	7.5	4.7	3.7	4.2	5.4	4.6	5.0	4.3	3.8	4.0
3	7.8	7.0	7.4	4.7	3.7	4.2	5.5	4.4	5.0	9.0	3.8	6.5
4	7.3	6.6	6.9	5.1	3.7	4.3	5.4	4.6	5.0	8.8	3.9	6.5
5	7.0	6.5	6.7	4.8	3.8	4.3	5.5	4.4	4.9	8.9	3.8	6.3
6	6.9	6.0	6.5	4.6	3.7	4.2	5.4	4.3	4.9	4.1	3.5	3.8
7	9.8	5.9	6.5	4.9	3.6	4.2	5.6	4.2	4.9	7.0	3.1	4.8
8	9.6	5.9	6.5	4.7	3.4	4.2	5.5	4.3	4.9	5.5	3.3	4.1
9	9.4	5.6	6.5	4.5	3.6	4.2	5.3	4.0	4.8	3.7	3.1	3.4
10	6.0	5.0	5.5	4.7	3.5	4.2	5.1	4.2	4.6	3.8	3.3	3.5
11	5.6	4.9	5.3	4.6	3.6	4.1	4.8	3.9	4.5	3.7	3.2	3.5
12	5.5	4.8	5.1	4.8	3.4	4.2	5.3	4.1	4.5	3.6	3.2	3.4
13	5.3	4.8	5.1	4.5	2.9	3.7	5.0	4.0	4.4	3.7	3.3	3.5
14	5.3	4.8	5.0	5.4	3.1	4.4	4.9	4.1	4.5	3.6	3.2	3.4
15	5.3	4.7	5.0	5.6	4.5	5.2	4.9	4.1	4.5	3.8	3.2	3.5
16	5.2	4.9	5.0	5.5	3.5	4.3	4.9	4.3	4.6	3.8	3.2	3.5
17	5.3	4.8	5.0	7.7	3.6	5.7	4.9	4.0	4.5	4.0	3.1	3.6
18	5.2	4.7	5.0	9.5	5.4	6.3	4.8	4.0	4.4	4.2	3.3	3.7
19	5.3	4.7	5.0	6.2	5.0	5.6	4.7	4.1	4.4	7.0	3.5	5.8
20	5.2	4.7	5.0	5.5	4.5	5.0	4.7	3.9	4.3	7.0	6.4	6.6
21	10.4	4.2	5.1	5.3	4.4	4.7	5.0	4.1	4.4	6.9	3.5	5.0
22	5.8	4.4	5.2	5.4	4.5	4.9	4.5	4.0	4.2	4.1	3.4	3.7
23	7.1	4.9	5.5	5.7	4.4	4.8	4.6	4.0	4.2	3.9	3.0	3.5
24	6.1	4.5	5.4	5.3	4.2	4.8	4.5	3.7	4.2	3.8	3.0	3.4
25	5.6	4.5	5.0	5.4	4.3	4.8	4.6	3.7	4.2	7.1	3.2	4.4
26	5.2	3.7	4.4	5.5	4.2	4.8	5.2	4.0	4.4	3.4	3.0	3.2
27	4.9	3.5	4.1	5.5	4.5	4.9	4.9	4.1	4.5	3.6	2.8	3.3
28	4.7	3.4	4.1	5.2	4.2	4.9	4.8	3.8	4.3	3.4	2.9	3.2
29	4.8	3.6	4.1	5.3	4.4	4.8	4.7	3.9	4.3	3.3	2.9	3.1
30	4.7	3.7	4.2	5.6	4.5	4.9	4.6	3.7	4.2	3.3	2.7	3.1
31	---	---	---	5.4	4.4	4.9	9.0	2.8	4.9	---	---	---
MONTH	10.4	3.4	5.5	10.4	2.9	4.7	9.0	2.8	4.6	9.0	2.7	4.2

14309500 WEST FORK COW CREEK NEAR GLENDALE, OR

LOCATION.--Lat 42°48'15", long 123°36'35", in SW 1/4 NE 1/4 sec.11, T.32 S., R.8 W., Douglas County, Hydrologic Unit 17100302, on left bank 1.6 mi downstream from Bear Creek, 11 mi northwest of Glendale, and at mile 0.8.

DRAINAGE AREA.--86.9 mi².

PERIOD OF RECORD.--August 1955 to current year.

REVISED RECORDS.--WSP 1738: 1956, drainage area (former site). WSP 1935: 1956.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,018.48 ft above National Geodetic Vertical Datum of 1929. Prior to June 8, 1964, at site 0.6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--32 years, 273 ft³/s, 42.66 in/yr, 197,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Dec. 22, 1964, gage height, 18.59 ft, from floodmark, from rating curve extended above 2,600 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 3.7 ft³/s Aug. 17, 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	0900	3,260	7.85	Feb. 2	0530	3,580	8.18
Jan. 25	2400	3,020	7.60	Mar. 12	1600	*4,060	*8.65

Minimum discharge, 4.3 ft³/s Sept. 2-4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	97	364	1570	1050	205	148	65	37	12	8.0	4.5
2	37	69	257	1310	2800	204	136	68	30	11	7.5	4.4
3	33	55	195	1550	1450	779	123	58	28	11	7.2	4.3
4	29	46	161	1070	917	682	119	53	26	11	6.9	4.5
5	27	40	151	655	676	531	110	50	24	11	6.6	4.5
6	25	36	129	461	522	436	103	47	23	11	6.4	4.5
7	23	65	111	342	418	357	98	44	23	11	6.4	4.5
8	22	93	100	261	340	312	92	44	23	11	6.3	4.5
9	21	75	93	212	281	378	87	41	22	11	6.0	4.7
10	20	78	86	179	237	345	86	38	21	11	5.8	4.8
11	20	68	80	159	206	407	85	37	20	11	5.8	5.0
12	19	60	76	165	185	2530	81	36	20	10	5.8	5.1
13	18	54	81	211	534	1770	76	37	19	9.4	5.8	5.4
14	17	51	96	255	759	1140	73	35	18	9.1	6.2	5.5
15	17	46	102	301	810	921	69	34	18	8.5	7.1	5.5
16	17	41	95	246	867	680	69	34	19	8.3	7.0	5.5
17	18	39	88	201	623	562	70	33	20	8.6	6.3	5.5
18	23	39	85	173	505	580	84	33	18	11	6.0	5.5
19	21	45	101	152	412	650	74	32	17	13	5.6	5.4
20	19	82	98	136	343	616	66	31	17	14	5.5	5.3
21	18	397	92	125	308	515	63	31	17	13	5.5	5.2
22	17	915	277	117	304	416	60	29	17	14	5.5	5.0
23	17	415	510	118	356	416	58	29	17	13	5.5	5.0
24	17	259	440	573	351	410	55	29	16	11	5.4	4.7
25	17	245	362	2110	315	361	53	32	15	10	5.3	4.7
26	19	261	281	2060	270	304	52	33	14	9.7	5.2	5.0
27	52	1610	213	1270	236	259	50	30	13	9.3	4.9	5.0
28	44	2530	175	1480	217	227	48	29	13	8.9	4.8	5.0
29	74	1070	228	976	---	200	47	28	12	8.5	4.9	5.0
30	242	559	263	691	---	178	47	28	12	8.3	4.7	5.0
31	161	---	282	533	---	161	---	40	---	8.3	4.6	---
TOTAL	1147	9440	5672	19662	16292	17532	2387	1188	589	327.9	184.5	148.5
MEAN	37.0	315	183	634	582	566	79.6	38.3	19.6	10.6	5.95	4.95
MAX	242	2530	510	2110	2800	2530	148	68	37	14	8.0	5.5
MIN	17	36	76	117	185	161	47	28	12	8.3	4.6	4.3
AC-FT	2280	18720	11250	39000	32320	34770	4730	2360	1170	650	366	295
CFSM	.43	3.62	2.11	7.30	6.70	6.51	.92	.44	.23	.12	.07	.06
IN.	.49	4.04	2.43	8.42	6.97	7.51	1.02	.51	.25	.14	.08	.06

CAL YR 1986 TOTAL 85824.8 MEAN 235 MAX 3040 MIN 4.7 AC-FT 170200 CFSM 2.71 IN. 36.74
WTR YR 1987 TOTAL 74569.9 MEAN 204 MAX 2800 MIN 4.3 AC-FT 147900 CFSM 2.35 IN. 31.92

14310000 COW CREEK NEAR RIDDLE, OR

LOCATION.--Lat 42°55'25", long 123°25'40", in NE 1/4 sec.32, T.30 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on left bank 0.4 mi upstream from Council Creek, 3.8 mi southwest of Riddle, and at mile 6.7.

DRAINAGE AREA.--456 mi^2.

PERIOD OF RECORD.--September 1954 to current year.

REVISED RECORDS.--WSP 1535: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 682.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. Regulated since Oct. 7, 1985 by Galesville Reservoir (station 14308995). Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--33 years, 886 ft^3/s, 641,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,400 ft^3/s Jan. 15, 1974, gage height, 28.17 ft; minimum discharge, 7.4 ft^3/s Aug. 17-19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of about 28.5 ft, present site and datum from slope-area measurement, discharge, 41,100 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft^3/s Feb. 2, gage height, 13.31 ft; minimum discharge, 50 ft^3/s Sept. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158	374	1240	2460	2370	650	510	218	138	99	79	57
2	142	278	950	3520	9330	628	481	234	122	99	77	61
3	126	228	778	3680	5340	1540	492	207	112	97	76	60
4	119	200	647	3200	3110	1800	482	191	105	100	72	58
5	109	180	544	2040	2240	1400	439	186	100	101	67	54
6	104	167	465	1420	1700	1250	415	179	109	103	68	69
7	99	201	401	1170	1340	1060	394	173	113	102	70	64
8	95	344	364	870	1100	938	374	175	168	101	67	60
9	91	301	335	693	937	997	354	159	148	102	66	64
10	90	284	307	605	813	922	347	147	136	103	65	63
11	89	260	282	542	729	939	362	140	128	102	65	61
12	87	238	265	519	642	3510	348	137	135	101	67	62
13	84	221	261	611	1210	4040	321	137	132	99	66	65
14	83	213	297	623	2550	2670	309	133	147	99	67	67
15	81	214	304	718	2530	2210	297	129	145	105	70	65
16	82	196	290	643	2700	1750	282	138	154	107	70	65
17	89	185	273	580	2080	1470	278	134	158	108	68	64
18	101	181	262	525	1690	1530	296	132	153	109	64	63
19	97	198	282	484	1360	1820	295	128	148	102	60	61
20	90	225	282	446	1160	1780	271	127	144	101	62	60
21	87	943	263	420	1070	1570	259	124	144	99	61	66
22	85	2190	376	405	1010	1270	252	122	143	115	60	70
23	85	1470	1030	406	1070	1170	245	121	122	125	62	61
24	106	871	993	1240	1090	1090	235	120	111	106	63	55
25	112	854	892	3870	1020	981	225	128	104	98	62	55
26	110	770	741	5860	871	867	220	136	100	93	60	57
27	182	2440	599	3670	756	761	211	128	98	90	59	64
28	230	5240	506	4160	688	691	205	124	100	86	59	58
29	198	3270	532	2960	---	639	200	119	102	83	59	58
30	715	1850	628	2150	---	592	197	115	103	82	58	57
31	605	---	639	1540	---	544	---	130	---	81	59	---
TOTAL	4531	24586	16028	52030	52506	43079	9596	4571	3822	3098	2028	1844
MEAN	146	820	517	1678	1875	1390	320	147	127	99.9	65.4	61.5
MAX	715	5240	1240	5860	9330	4040	510	234	168	125	79	70
MIN	81	167	261	405	642	544	197	115	98	81	58	54
AC-FT	8990	48770	31790	103200	104100	85450	19030	9070	7580	6140	4020	3660

CAL YR 1986 TOTAL 244482 MEAN 670 MAX 9880 MIN 16 AC-FT 484900
WTR YR 1987 TOTAL 217719 MEAN 596 MAX 9330 MIN 54 AC-FT 431800

14311500 LOOKINGGLASS CREEK AT BROCKWAY, OR

LOCATION.--Lat 43°07'50", long 123°27'50", in SE 1/4 SE 1/4 sec.13, T.28 S., R.7 W., Douglas County, Hydrologic Unit 17100302, on left bank 1.7 mi northwest of Brockway and at mile 2.85.

DRAINAGE AREA.--158 mi^2.

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2135: Drainage area (former site).

GAGE.--Water-stage recorder. Elevation of gage is 540 ft, from topographic map. Prior to Oct. 5, 1967, water-stage recorder at site 2.3 mi downstream at different datum. Oct. 5, 1967, to Oct. 5, 1976, water-stage recorder, at datum 1.00 ft lower.

REMARKS.--Estimated daily discharges: Feb. 23 to Mar. 10. Records good except for estimated daily discharges, which are fair. Some regulation by Ben Irving Reservoir 17 mi upstream on Berry Creek, capacity, 11,200 acre-ft since January 1980. Many diversions by pumping for irrigation upstream from station. Discharge not adjusted for storage or release from Ben Irving Reservoir as losses from reservoir at times exceed natural flow.

AVERAGE DISCHARGE.--24 years (water years 1956-79), 282 ft^3/s, 204,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft^3/s Dec. 26, 1955, gage height, 24.93 ft, site and datum then in use, from rating curve extended above 7,200 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height, 25.28 ft Dec. 23, 1964 (backwater from South Umpqua River, site and datum then in use); no flow at times each year prior to January 1980, Aug. 6, 7, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,990 ft^3/s Feb. 2, gage height, 10.57 ft; minimum discharge, no flow Aug. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	137	343	984	2080	190	117	28	11	3.5	2.2	5.9
2	26	122	249	1200	3400	180	104	28	9.2	3.4	2.2	5.3
3	24	111	191	1180	1630	500	115	27	7.8	3.5	1.6	3.0
4	22	105	155	930	1020	450	100	23	7.3	4.1	1.0	3.5
5	21	101	136	597	706	360	87	23	6.9	4.6	.73	5.0
6	20	98	112	413	533	290	80	22	6.7	5.5	.19	5.3
7	44	107	93	310	437	220	74	21	6.8	4.6	17	4.9
8	52	84	81	245	375	170	68	19	6.4	4.8	15	5.0
9	52	65	71	203	331	130	63	17	5.5	4.8	6.8	4.7
10	52	61	65	170	300	107	60	15	4.7	4.5	7.5	4.4
11	107	58	60	148	271	112	62	13	3.6	3.4	7.4	4.5
12	111	52	59	160	174	191	61	14	2.3	4.4	8.2	5.0
13	110	33	62	280	309	389	55	14	1.8	4.3	7.5	4.6
14	109	26	71	269	548	367	51	13	.96	4.5	8.3	4.7
15	108	23	66	248	590	339	47	12	1.2	4.7	11	5.4
16	108	21	61	217	610	305	44	13	3.2	4.5	9.8	6.2
17	113	19	57	187	544	291	42	12	13	7.4	8.7	5.7
18	111	18	54	165	504	454	45	12	9.4	9.1	7.2	6.5
19	110	19	58	144	423	688	45	11	6.6	13	6.6	5.8
20	107	27	56	129	367	586	41	11	6.0	12	7.2	5.7
21	105	171	51	115	332	491	39	11	7.2	11	7.5	5.0
22	105	446	64	109	306	385	36	11	8.9	7.5	7.9	5.1
23	105	307	172	122	320	384	35	11	8.1	6.8	8.2	4.9
24	104	201	218	358	320	330	33	10	7.6	7.0	6.0	5.0
25	105	201	200	1320	280	285	32	13	6.7	6.1	5.0	6.3
26	104	195	214	1860	240	244	30	15	4.8	6.1	5.2	6.8
27	106	1750	186	1340	220	208	29	12	4.4	5.4	5.8	6.5
28	107	2420	160	1390	200	182	27	11	4.0	4.2	6.4	6.8
29	108	1050	206	864	---	163	26	9.7	3.8	3.5	6.5	6.9
30	138	529	216	625	---	145	26	7.8	4.0	2.7	8.1	6.8
31	152	---	198	655	---	130	---	10	---	2.4	7.7	---
TOTAL	2675	8557	3985	16937	17370	9266	1674	469.5	179.86	173.3	210.42	161.2
MEAN	86.3	285	129	546	620	299	55.8	15.1	6.00	5.59	6.79	5.37
MAX	152	2420	343	1860	3400	688	117	28	13	13	17	6.9
MIN	20	18	51	109	174	107	26	7.8	.96	2.4	.19	3.0
AC-FT	5310	16970	7900	33590	34450	18380	3320	931	357	344	417	320

CAL YR 1986 TOTAL 87439.2 MEAN 240 MAX 5600 MIN 3.5 AC-FT 173400
WTR YR 1987 TOTAL 61658.28 MEAN 169 MAX 3400 MIN .19 AC-FT 122300

14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR

LOCATION.--Lat 43°08'00", long 123°23'50", in SW 1/4 sec.15, T.28 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on right bank 10 ft upstream from Winston Bridge on State Highway 99, 2.5 mi northeast of Brockway, 4.2 mi downstream from Lookingglass Creek, and at mile 132.8.

DRAINAGE AREA.--1,670 mi^2.

PERIOD OF RECORD.--December 1905 to June 1912, October 1923 to September 1926, January 1942 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1946(M), 1948(M), 1951. WSP 1448: Drainage area. WDR OR 72-1: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 462.52 ft above National Geodetic Vertical Datum of 1929 (State Highway Department bench mark). Prior to June 24, 1949, nonrecording gage at several sites within 400 ft of present site at various datums. June 24, 1949, to Oct. 1, 1970, at datum 461.84 ft National Geodetic Vertical Datum of 1929 (State Highway Department bench mark).

REMARKS.--No estimated daily discharges. Records excellent. Regulation from Ben Irving Reservoir, since January 1980, on Berry Creek during summer months. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--53 years (water years 1907-11, 1924-26, 1943-87), 2,877 ft^3/s, 23.40 in/yr, 2,084,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft^3/s Dec. 23, 1964, gage height, 34.28 ft; minimum discharge, 16 ft^3/s Aug. 23, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 21, 1927, reached a stage of about 31.2 ft, present site and datum, discharge (revised), 89,500 ft^3/s. Discharge for flood of February 1890, which reached a stage 1.9 ft higher, according to local resident who lived nearby at time of both floods, has been found to be in error and should not be used.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	1900	21,600	14.16	Feb. 2	1200	*33,100	*17.17
Jan. 26	0730	25,200	15.05				

Minimum discharge, 74 ft^3/s Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	927	1430	4670	3930	9190	2140	1870	940	379	160	198	87
2	745	1080	3550	11200	28900	2030	1820	953	398	154	193	81
3	624	850	2880	9080	16700	2330	1890	900	345	161	178	78
4	537	716	2430	8670	9980	3390	1860	831	312	165	165	81
5	483	634	2130	5710	6930	2900	1680	776	289	166	151	78
6	448	576	1940	4140	5320	3120	1550	757	272	165	137	81
7	435	620	1720	3250	4400	2880	1450	753	279	158	131	87
8	422	1400	1520	2710	3770	2530	1390	743	292	158	157	96
9	393	1520	1380	2220	3310	2450	1360	711	335	156	138	88
10	371	2340	1250	1930	2970	2310	1310	656	297	156	133	92
11	386	1850	1140	1730	2740	2200	1410	605	284	158	126	97
12	387	1370	1070	1650	2500	3510	1490	565	271	157	125	95
13	369	1130	1050	1910	3100	7300	1370	541	265	153	127	102
14	357	990	1130	1890	6510	5240	1270	517	257	139	128	106
15	347	928	1180	2020	6260	4940	1220	485	264	129	133	109
16	343	828	1110	1870	6390	4280	1180	474	268	133	138	108
17	357	735	1030	1680	5520	3740	1160	467	292	152	139	106
18	371	712	972	1560	5110	4500	1230	444	297	172	122	104
19	381	796	965	1440	4560	5680	1260	425	280	374	112	98
20	374	1190	978	1330	3950	5270	1150	400	270	707	101	94
21	350	3780	922	1250	3570	4640	1080	385	269	411	99	95
22	339	9020	919	1200	3330	3890	1040	373	273	375	96	94
23	328	7830	1660	1240	3390	3720	1050	359	284	907	101	97
24	327	4810	2170	2130	3450	4230	1060	356	249	648	102	94
25	348	4090	2290	9060	3180	3800	1030	381	221	451	96	88
26	353	3450	2210	21300	2840	3340	993	420	201	363	93	89
27	400	7060	2130	13100	2530	2920	962	405	185	317	93	92
28	637	17800	1900	13000	2290	2590	976	379	179	278	94	100
29	648	13100	1790	9330	---	2340	1010	361	175	246	94	97
30	908	6890	1910	6770	---	2130	968	340	167	227	94	94
31	1750	---	1850	5290	---	1960	---	338	---	209	98	---
TOTAL	15445	99525	53846	153590	162690	108300	39089	17040	8149	8305	3892	2808
MEAN	498	3317	1737	4955	5810	3494	1303	550	272	268	126	93.6
MAX	1750	17800	4670	21300	28900	7300	1890	953	398	907	198	109
MIN	327	576	919	1200	2290	1960	962	338	167	129	93	78
AC-FT	30640	197400	106800	304600	322700	214800	77530	33800	16160	16470	7720	5570
CFSM	.30	1.99	1.04	2.97	3.48	2.09	.78	.33	.16	.16	.08	.06
IN.	.34	2.22	1.20	3.42	3.62	2.41	.87	.38	.18	.18	.09	.06

CAL YR 1986 TOTAL 893104 MEAN 2447 MAX 43200 MIN 54 AC-FT 1771000 CFSM 1.47 IN. 19.89
WTR YR 1987 TOTAL 672679 MEAN 1843 MAX 28900 MIN 78 AC-FT 1334000 CFSM 1.10 IN. 14.98

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

LOCATION.--Lat 43°13'20", long 123°24'45", in NW 1/4 SE 1/4 sec.16, T.27 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on left bank, 3.7 mi west of Roseburg, and at mile 117.7.

DRAINAGE AREA.--1,798 mi^2.

PERIOD OF RECORD.--Water years 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1970 to current year.
pH: August 1971 to current year.
DISSOLVED OXYGEN: October 1970 to current year.
WATER TEMPERATURE: October 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 423 microsiemens Sept. 18, 1971; minimum, 37 microsiemens Feb. 18, 1983.
pH: Maximum, 10.0 units Sept. 8, 9, 1971; minimum, 5.0 units Sept. 29, 1971.
DISSOLVED OXYGEN: Maximum, 18.5 mg/l Aug. 24, 1986; minimum, 0.4 mg/l Aug. 10, 1978.
WATER TEMPERATURE: Maximum, 35.0°C July 16, 1976; minimum, 0.0°C Dec. 14, 16, 1972, Jan. 9, 1974.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 184 microsiemens Sept. 29, 30; minimum, 66 microsiemens Jan. 26.
pH: Maximum recorded, 9.3 units Aug. 24-31; minimum, 6.6 units Feb. 3.
DISSOLVED OXYGEN: Maximum, 15.1 mg/l Aug. 26; minimum, 3.4 mg/l July 15.
WATER TEMPERATURE: Maximum, 29.5°C June 29, 30, July 14; minimum, 2.0°C Jan. 18, 19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 09...	1315	390	128	7.7	16.0	9.8	100	130	47	47	0	11
NOV 06...	1330	570	121	7.7	11.0	11.3	103	K21	K31	42	2	9.4
DEC 17...	1230	1030	115	7.5	5.5	12.3	99	27	27	48	1	11
JAN 14...	0930	1860	112	7.4	5.0	12.4	98	73	190	45	0	9.7
FEB 19...	1330	4520	90	7.0	7.5	11.8	98	46	110	36	0	8.0
MAR 04...	1130	3390	103	7.3	9.0	11.6	102	42	62	42	0	9.1
APR 22...	1145	1030	108	7.5	14.5	10.9	110	32	K10	41	0	9.5
MAY 13...	1200	537	111	7.7	22.5	9.5	111	K10	K33	43	0	10
JUN 10...	1300	295	140	8.4	24.5	10.7	130	K6	K15	52	0	12
JUL 07...	1200	158	155	8.4	23.5	10.0	119	K11	48	57	0	13
AUG 26...	1200	95	156	8.8	23.5	10.6	126	K8	K810	56	3	12
SEP 23...	0930	98	177	7.8	19.0	7.9	86	K13	213	57	0	12

K - Results based on colony count outside acceptable range (non-ideal colony count).

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT DIS IT FIELD (MG/L AS CACO3)	BICARBONATE IT-FLD (MG/L AS HCO3)	CARBONATE IT-FLD (MG/L AS CO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
OCT											
09...	4.7	6.5	0.9	48	56	0	8.1	7.0	<0.1	0.06	0.1
NOV											
06...	4.6	--	--	40	49	0	--	6.5	--	--	<0.1
DEC											
17...	4.9	5.5	0.7	47	55	0	7.7	3.7	<0.1	0.04	0.2
JAN											
14...	5.0	--	--	47	57	0	--	4.2	--	--	0.2
FEB											
19...	3.8	3.9	0.6	38	45	0	4.4	2.6	<0.1	0.03	0.1
MAR											
04...	4.7	--	--	44	53	0	--	5.1	--	--	<0.1
APR											
22...	4.2	--	--	44	54	0	--	4.5	--	--	<0.1
MAY											
13...	4.4	5.6	0.8	44	52	0	5.5	5.3	<0.1	0.05	0.1
JUN											
10...	5.4	7.1	1.0	54	60	2	7.2	11	0.1	0.06	<0.1
JUL											
07...	5.9	--	--	57	60	5	--	11	--	--	0.1
AUG											
26...	6.3	9.7	1.1	53	51	5	8.3	11	0.1	0.02	0.3
SEP											
23...	6.6	--	--	58	69	0	--	12	--	--	0.4

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER DAY)	TURBIDITY (NTU)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT											
09...	0.5	0.08	0.08	0.10	1.4	96	70	101	0.6	--	--
NOV											
06...	0.4	0.04	--	0.07	--	69	--	--	--	--	--
DEC											
17...	0.6	0.04	0.05	0.05	17	81	80	225	2.9	3	8.3
JAN											
14...	0.2	0.03	--	0.07	--	79	--	--	--	1	5.0
FEB											
19...	0.4	0.02	0.03	0.03	16	53	59	647	8.6	11	134
MAR											
04...	0.6	0.07	--	0.09	--	68	--	--	--	6	55
APR											
22...	0.4	--	--	0.05	--	76	--	--	--	--	--
MAY											
13...	1.2	0.07	0.08	0.10	14	75	73	109	1.5	--	--
JUN											
10...	2.3	0.06	0.10	0.09	12	82	88	65.3	1.5	--	--
JUL											
07...	0.8	0.14	--	0.01	--	98	--	--	--	--	--
AUG											
26...	0.8	0.19	0.25	0.27	9.0	87	91	22.3	0.7	--	--
SEP											
23...	0.9	0.27	--	0.25	--	100	--	--	--	--	--

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT 09...	20	--	<1	22	0.6	<1	<1	<3	2	49	<5
NOV 06...	--	--	--	--	--	--	--	--	--	--	--
DEC 17...	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
FEB 19...	70	--	<1	19	0.9	<1	3	<3	2	100	<5
MAR 04...	--	--	--	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	10	--	1	12	<0.5	<1	<1	<3	8	40	<5
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--	--
AUG 26...	<10	<1	1	11	<0.5	1	2	<3	4	44	<5
SEP 23...	--	--	--	--	--	--	--	--	--	--	--

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 09...	7	12	0.2	<10	1	<1	<1.0	94	<6	16
NOV 06...	--	--	--	--	--	--	--	--	--	--
DEC 17...	--	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--	--
FEB 19...	<4	6	--	<10	3	<1	1.0	58	<6	7
MAR 04...	--	--	--	--	--	--	--	--	--	--
APR 22...	--	--	--	--	--	--	--	--	--	--
MAY 13...	4	11	--	<10	2	<1	2.0	85	<6	20
JUN 10...	--	--	--	--	--	--	--	--	--	--
JUL 07...	--	--	--	--	--	--	--	--	--	--
AUG 26...	<4	[illegible]	0.1	<10	<1	<1	<1.0	119	<6	14
SEP 23...	--	--	--	--	--	--	--	--	--	--

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PER-THANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)
OCT											
09...	--	--	--	--	--	--	--	--	--	--	--
NOV											
06...	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1
DEC											
17...	--	--	--	--	--	--	--	--	--	--	--
JAN											
14...	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1
FEB											
19...	--	--	--	--	--	--	--	--	--	--	--
MAR											
04...	--	--	--	--	--	--	--	--	--	--	--
APR											
22...	--	--	--	--	--	--	--	--	--	--	--
MAY											
13...	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--
JUL											
07...	--	--	--	--	--	--	--	--	--	--	--
AUG											
26...	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1
SEP											
23...	--	--	--	--	--	--	--	--	--	--	--

DATE	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	MIREX, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT										
09...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	<0.01	<0.01	<0.01	0.2	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
DEC										
17...	--	--	--	--	--	--	--	--	--	--
JAN										
14...	<0.01	<0.01	<0.01	<0.1	<0.1	0.01	<0.01	0.01	<0.01	<0.01
FEB										
19...	--	--	--	--	--	--	--	--	--	--
MAR										
04...	--	--	--	--	--	--	--	--	--	--
APR										
22...	--	--	--	--	--	--	--	--	--	--
MAY										
13...	<0.01	<0.01	<0.01	<0.1	<0.1	0.03	<0.01	<0.01	<0.01	<0.01
JUN										
10...	--	--	--	--	--	--	--	--	--	--
JUL										
07...	--	--	--	--	--	--	--	--	--	--
AUG										
26...	<0.01	<0.01	<0.01	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
SEP										
23...	--	--	--	--	--	--	--	--	--	--

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	104	99	101	151	129	136	89	84	87	---	---	---
2	109	104	106	129	123	126	94	89	92	---	---	---
3	110	---	---	123	121	121	98	94	95	---	---	---
4	---	---	---	122	120	121	101	98	99	---	---	---
5	---	---	---	123	121	122	104	101	103	---	---	---
6	120	---	---	125	122	123	---	---	---	---	---	---
7	123	120	121	129	124	126	---	---	---	---	---	---
8	126	122	124	133	128	130	108	106	107	---	---	---
9	130	125	127	138	128	133	110	108	109	---	---	---
10	130	127	129	129	112	122	112	110	111	---	---	---
11	130	127	129	112	97	102	115	112	113	---	---	---
12	130	127	129	101	97	98	117	115	116	---	---	---
13	130	128	129	105	101	103	119	117	118	---	113	114
14	130	125	127	111	105	109	120	119	119	113	112	112
15	129	125	127	115	110	113	119	118	119	112	109	109
16	129	126	128	119	115	116	118	115	116	109	106	107
17	133	128	130	126	119	122	116	115	116	106	105	106
18	134	130	132	128	125	126	118	115	116	108	106	107
19	138	134	136	129	125	127	---	---	---	109	107	108
20	142	137	139	129	123	126	---	---	---	115	109	112
21	143	140	142	131	104	122	---	---	---	116	115	115
22	147	140	143	---	---	---	---	---	---	119	116	117
23	149	145	147	77	73	75	---	---	---	121	118	119
24	149	146	147	86	77	81	---	---	---	124	118	121
25	148	145	146	89	85	88	---	---	---	118	80	99
26	147	142	144	94	89	91	---	---	---	80	66	69
27	148	143	145	102	91	97	---	---	---	78	70	73
28	150	147	148	91	72	80	---	---	---	78	73	76
29	155	148	150	77	71	73	---	---	---	78	73	76
30	160	152	157	84	77	81	---	---	---	84	78	81
31	157	151	153	---	---	---	---	---	---	89	84	87
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	93	81	89	108	106	107	103	102	102	105	103	104
2	81	---	---	110	108	109	104	102	103	103	102	103
3	78	72	75	110	107	109	108	104	106	103	101	102
4	82	78	80	107	92	101	106	105	106	105	103	104
5	86	82	84	94	91	92	106	105	105	106	104	105
6	91	86	89	---	---	---	107	105	106	108	---	---
7	94	91	93	---	---	---	107	106	106	110	107	108
8	97	94	96	---	---	---	111	106	108	---	---	---
9	99	97	98	95	93	94	111	108	109	---	---	---
10	101	99	100	96	95	95	110	108	109	110	---	---
11	103	100	102	99	95	97	111	109	110	110	108	110
12	103	102	102	99	92	97	109	107	108	---	---	---
13	108	103	105	92	67	73	107	104	105	113	---	---
14	108	84	94	81	74	79	105	---	---	114	112	113
15	87	83	85	82	81	82	---	---	---	116	113	115
16	87	84	85	84	81	83	108	106	107	118	115	117
17	88	84	86	90	84	87	108	107	108	119	117	118
18	90	88	89	92	90	91	110	108	109	122	117	120
19	92	89	90	90	86	88	108	107	108	125	120	122
20	94	91	92	88	86	87	107	105	106	126	121	124
21	98	93	96	90	88	89	108	106	107	127	123	125
22	101	98	99	92	90	91	110	105	108	129	124	127
23	105	101	104	99	92	96	---	---	---	130	126	129
24	103	102	103	96	91	94	---	---	---	133	127	130
25	103	101	102	92	90	91	---	---	---	133	130	132
26	104	102	103	---	---	---	---	---	---	137	131	134
27	106	103	104	95	93	94	---	---	---	136	132	134
28	106	104	105	97	95	96	108	---	---	137	132	134
29	---	---	---	98	97	98	107	105	106	137	133	135
30	---	---	---	101	98	100	105	104	104	139	134	136
31	---	---	---	102	100	101	---	---	---	140	135	138
MONTH	108	---	---	---	---	---	---	---	---	---	---	---

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTCBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	141	136	139	153	147	151	132	126	129	166	158	162
2	141	136	139	155	150	153	134	130	132	170	160	164
3	141	136	139	156	150	153	138	132	135	170	164	167
4	143	137	140	156	150	153	140	134	138	170	164	167
5	143	139	141	156	151	154	144	136	140	172	164	167
6	143	136	140	158	152	155	144	138	142	170	162	166
7	142	137	140	160	154	158	146	138	143	168	162	166
8	143	138	141	160	154	157	146	140	144	170	164	167
9	145	139	143	157	153	155	146	142	145	168	162	165
10	145	139	142	157	151	155	148	142	146	170	162	166
11	144	139	142	157	153	156	150	144	149	170	164	167
12	145	140	143	159	153	157	152	146	150	172	164	168
13	145	140	144	161	155	159	154	148	151	174	168	172
14	146	141	144	163	157	161	154	146	151	174	168	172
15	146	142	145	163	159	161	154	148	151	174	170	173
16	146	142	145	163	157	160	152	148	151	176	170	174
17	147	143	145	163	159	161	156	150	153	178	170	174
18	148	143	146	164	158	161	156	150	154	176	168	172
19	147	142	145	162	152	157	156	150	154	176	168	173
20	147	141	145	---	---	---	158	150	155	178	170	175
21	146	141	145	---	---	---	158	152	156	180	172	176
22	147	142	145	---	---	---	158	152	156	180	172	178
23	147	142	146	---	---	---	158	152	156	180	172	177
24	148	142	144	---	---	---	158	152	156	180	174	178
25	147	142	145	---	---	---	160	154	158	182	174	178
26	148	141	145	---	---	---	162	154	159	184	174	179
27	149	142	146	---	---	---	164	158	161	182	174	178
28	151	144	147	---	---	---	164	158	162	182	174	179
29	152	145	149	124	120	122	166	158	162	184	176	181
30	153	146	150	126	122	125	164	158	161	184	178	182
31	---	---	---	130	124	127	164	158	162	---	---	---
MONTH	153	136	144	---	---	---	166	126	150	184	158	172

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.5	7.3	7.6	7.4	7.4	7.3	---	---	7.0	6.8	7.2	7.1
2	7.5	7.3	7.6	7.4	7.4	7.3	---	---	---	---	7.2	7.1
3	7.6	7.3	7.6	7.4	7.4	7.4	---	---	6.8	6.6	7.3	7.1
4	---	---	7.6	7.4	7.4	7.4	---	---	6.8	6.7	7.2	7.1
5	---	---	7.7	7.4	7.5	7.4	---	---	6.8	6.8	7.1	6.9
6	---	---	7.8	7.4	---	---	---	---	6.9	6.8	---	---
7	7.8	7.3	7.8	7.4	---	---	---	---	6.9	6.9	---	---
8	8.0	7.3	7.6	7.5	7.5	7.4	---	---	6.9	6.9	---	---
9	8.0	7.3	7.6	7.4	7.5	7.4	---	---	7.0	6.9	7.1	7.0
10	7.9	7.3	7.5	7.4	7.5	7.5	---	---	7.0	6.9	7.1	7.0
11	8.1	7.3	7.4	7.3	7.5	7.5	---	---	7.0	7.0	7.2	7.0
12	8.2	7.4	7.4	7.3	7.5	7.5	---	---	7.0	7.0	7.4	7.0
13	8.3	7.4	7.5	7.3	7.6	7.5	7.5	---	7.1	7.0	7.3	6.8
14	8.3	7.4	7.5	7.3	7.6	7.5	7.5	7.4	7.0	6.9	6.9	6.8
15	8.3	7.3	7.6	7.4	7.6	7.5	7.5	7.4	6.9	6.9	6.9	6.9
16	8.3	7.4	7.6	7.4	7.6	7.5	7.4	7.4	6.9	6.9	6.9	6.9
17	8.0	7.3	7.7	7.4	7.5	7.5	7.4	7.4	6.9	6.9	7.0	6.9
18	8.1	7.3	7.7	7.4	7.5	7.5	7.4	7.3	6.9	6.9	7.0	6.9
19	8.2	7.3	7.7	7.4	---	---	7.4	7.4	7.0	6.9	7.0	6.9
20	8.2	7.4	7.6	7.4	---	---	7.4	7.2	7.0	7.0	7.0	6.9
21	8.2	7.3	7.5	7.3	---	---	7.3	7.2	7.0	7.0	7.0	6.9
22	8.2	7.3	---	---	---	---	7.4	7.3	7.1	7.0	7.0	6.9
23	7.9	7.4	7.2	7.2	---	---	7.4	7.3	7.1	7.0	7.0	6.9
24	8.0	7.3	7.3	7.2	---	---	7.3	7.3	7.1	7.1	7.0	7.0
25	8.0	7.3	7.4	7.3	---	---	7.3	6.9	7.1	7.0	7.0	6.9
26	7.9	7.3	7.4	7.3	---	---	6.9	6.7	7.1	7.0	---	---
27	8.0	7.3	7.4	7.2	---	---	6.9	6.8	7.1	7.0	7.1	7.0
28	8.0	7.4	7.2	7.2	---	---	6.9	6.8	7.1	7.1	7.1	7.0
29	7.6	7.4	7.3	7.2	---	---	6.9	6.8	---	---	7.2	7.0
30	7.7	7.4	7.3	7.3	---	---	6.9	6.9	---	---	7.2	7.0
31	7.6	7.4	---	---	---	---	6.9	6.9	---	---	7.3	7.1
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.3	7.1	7.8	7.4	8.5	7.3	8.8	7.0	8.6	7.1	9.1	7.5
2	7.4	7.1	7.8	7.4	8.6	7.4	8.7	7.0	6.7	7.2	9.2	7.6
3	7.4	7.1	7.8	7.3	8.6	7.3	8.7	7.0	8.8	7.2	9.2	7.4
4	7.4	7.1	7.8	7.4	8.7	7.2	8.7	7.1	8.8	7.1	9.2	7.4
5	7.4	7.1	7.8	7.4	8.6	7.1	8.7	7.1	8.9	7.1	9.2	7.4
6	7.4	7.1	7.8	---	8.6	7.1	8.8	7.1	8.9	7.0	9.2	7.4
7	7.5	7.2	7.8	7.3	8.6	7.1	8.8	7.2	9.0	7.0	9.2	7.5
8	7.6	7.1	---	---	8.6	7.1	8.8	7.2	9.0	7.0	9.2	7.5
9	7.7	7.2	---	---	8.5	7.1	8.9	7.4	9.0	7.0	9.1	7.5
10	7.5	7.2	7.8	---	8.6	7.1	8.9	7.4	8.9	7.0	8.9	7.4
11	7.6	7.2	7.8	7.2	8.6	7.1	9.0	7.6	8.9	7.0	8.8	7.3
12	7.6	7.2	---	7.2	8.6	7.1	9.0	7.5	9.0	7.0	8.4	7.3
13	7.7	7.2	7.9	---	8.5	7.1	9.0	7.6	8.8	7.0	8.8	7.1
14	---	7.2	7.9	7.2	8.5	7.0	9.0	7.7	8.9	7.1	8.6	7.2
15	---	---	7.8	7.2	8.1	7.1	9.1	7.8	9.0	7.1	8.8	7.1
16	7.7	7.2	8.0	7.2	8.4	7.1	9.0	8.1	9.0	7.1	8.9	7.2
17	7.5	7.3	8.0	7.3	8.4	7.1	8.6	8.0	9.0	7.2	8.9	7.2
18	7.6	7.2	8.2	7.3	8.6	7.2	8.7	8.1	9.1	7.3	8.9	7.2
19	7.6	7.2	8.2	7.4	8.6	7.2	8.5	7.4	9.1	7.3	9.0	7.4
20	7.7	7.3	8.3	7.4	8.5	7.2	---	---	9.2	7.4	9.0	7.4
21	7.7	7.3	8.3	7.3	8.5	7.2	---	---	9.2	7.4	9.0	7.4
22	7.8	7.4	8.4	7.3	8.5	7.1	---	---	9.1	7.5	9.0	7.4
23	---	---	8.4	7.3	8.6	7.1	---	---	9.2	7.4	9.1	7.4
24	---	---	8.2	7.3	8.7	7.1	---	---	9.3	7.5	8.7	7.4
25	---	---	8.0	7.3	8.7	7.1	---	---	9.3	7.6	8.9	7.2
26	---	---	8.3	7.3	8.7	7.1	---	---	9.3	7.6	9.0	7.2
27	---	---	8.3	7.4	8.8	7.0	---	---	9.3	7.6	9.0	7.2
28	7.9	---	8.5	7.4	8.9	7.0	8.5	---	9.3	7.5	9.0	7.2
29	7.9	7.5	8.5	7.4	8.7	7.0	8.5	7.1	9.3	7.5	8.9	7.2
30	7.7	7.4	8.4	7.3	8.8	7.0	8.5	7.1	9.3	7.6	8.9	7.2
31	---	---	8.5	7.3	---	---	8.6	7.1	9.3	7.5	---	---
MONTH	---	---	---	---	8.8	7.0	---	---	9.3	7.0	9.2	7.1

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.2	9.6	9.9	10.5	10.0	10.3	---	---	---	---	---	---
2	10.1	9.6	9.8	10.8	10.3	10.5	---	---	---	---	---	---
3	10.3	---	---	11.0	10.4	10.6	---	---	---	---	---	---
4	---	---	---	11.0	10.6	10.7	12.0	11.7	11.8	---	---	---
5	---	---	---	11.2	10.6	10.8	12.5	11.9	12.2	---	---	---
6	---	---	---	11.3	10.7	10.9	---	---	---	---	---	---
7	9.9	9.3	9.5	11.4	10.8	11.0	---	---	---	---	---	---
8	9.7	9.1	9.3	11.6	10.9	11.2	12.3	12.0	12.0	---	---	---
9	10.6	9.0	9.7	11.2	11.0	11.1	12.3	12.1	12.2	---	---	---
10	10.6	9.3	9.8	11.1	10.9	11.0	12.5	12.2	12.3	---	---	---
11	11.0	9.5	10.2	11.2	11.0	11.1	12.3	12.0	12.2	---	---	---
12	11.2	9.7	10.3	11.9	11.2	11.5	12.5	12.3	12.4	---	---	---
13	11.5	9.8	10.5	11.6	11.3	11.4	12.6	12.3	12.4	12.6	---	---
14	11.1	9.8	10.4	11.7	11.2	11.4	12.6	12.3	12.4	12.5	12.2	12.4
15	11.5	10.1	10.6	11.9	11.3	11.5	12.4	12.2	12.3	12.6	12.3	12.5
16	11.6	9.2	10.5	11.6	11.1	11.2	12.4	11.8	12.1	13.0	12.5	12.8
17	9.7	8.9	9.2	11.5	11.0	11.2	12.5	11.8	12.2	14.1	12.9	13.4
18	9.5	8.7	9.0	11.4	10.9	11.1	12.5	12.1	12.3	13.7	13.1	13.3
19	9.3	8.4	8.8	11.7	11.1	11.3	---	---	---	13.5	13.1	13.3
20	10.0	8.3	9.1	11.2	10.7	10.9	---	---	---	---	---	---
21	10.2	8.9	9.4	11.2	10.8	11.0	---	---	---	---	---	---
22	10.2	8.9	9.4	---	---	---	---	---	---	---	---	---
23	10.0	8.9	9.4	11.3	10.9	11.0	---	---	---	---	---	---
24	10.5	9.1	9.7	11.2	11.1	11.1	---	---	---	---	---	---
25	10.5	9.3	9.7	11.6	11.2	11.4	---	---	---	---	---	---
26	10.3	9.3	9.7	11.9	11.5	11.7	---	---	---	---	---	---
27	10.6	9.3	9.8	11.9	11.4	11.6	---	---	---	---	---	---
28	10.5	9.3	9.9	11.6	11.3	11.5	---	---	---	---	---	---
29	10.4	9.9	10.0	12.0	11.6	11.8	---	---	---	---	---	---
30	10.8	9.7	10.2	---	11.9	---	---	---	---	---	---	---
31	10.1	9.7	9.9	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1				---	---	---	11.5	10.5	10.9	10.0	8.7	9.5
2				---	---	---	11.3	10.4	10.8	10.3	9.3	9.7
3				---	---	---	11.0	9.9	10.4	10.5	9.4	9.9
4				11.4	10.8	11.1	11.0	10.1	10.5	10.1	9.1	9.7
5				11.6	10.8	11.3	11.0	10.0	10.5	10.0	9.2	9.5
6				---	---	---	11.3	10.1	10.7	9.7	---	---
7				---	---	---	11.4	10.5	10.9	9.2	8.5	8.9
8				11.8	---	---	11.3	10.3	10.8	---	---	---
9				12.1	11.4	11.8	---	10.3	---	---	---	---
10				12.0	11.5	11.7	---	---	---	9.1	---	---
11				11.8	11.1	11.5	---	---	---	8.9	7.9	8.4
12				11.4	11.0	11.1	---	---	---	---	---	---
13				11.0	10.6	10.7	---	---	---	9.2	---	---
14				10.9	10.5	10.7	---	---	---	9.0	8.2	8.6
15				11.1	10.8	11.0	---	---	---	9.0	8.0	8.6
16				11.3	11.0	11.1	---	---	---	9.6	8.5	9.2
17				11.0	10.8	10.9	---	---	---	9.7	8.9	9.3
18				11.1	10.8	10.9	---	---	---	9.8	9.1	9.4
19				11.1	10.8	10.9	---	---	---	9.8	9.1	9.4
20				11.2	11.0	11.1	---	---	---	9.7	9.0	9.3
21				11.4	11.1	11.2	---	---	---	9.7	8.8	9.2
22				11.4	11.0	11.2	---	---	---	9.7	8.6	9.1
23				11.0	10.8	10.9	---	---	---	9.7	8.4	8.9
24				11.2	10.9	11.0	---	---	---	10.2	8.4	9.4
25				11.2	10.9	11.1	---	---	---	10.2	9.1	9.7
26				---	---	---	---	---	---	10.6	9.4	10.0
27				11.6	11.0	11.3	---	---	---	10.7	9.7	10.2
28				11.6	11.0	11.2	---	---	---	11.3	9.7	10.3
29				11.6	10.8	11.2	9.6	8.8	9.2	10.7	8.7	9.6
30				11.6	10.6	11.1	10.2	8.7	9.2	9.9	8.4	9.2
31				11.5	10.6	11.0	---	---	---	10.7	8.4	9.5
MONTH				---	---	---	---	---	---	---	---	---

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	8.4	10.0	10.1	4.3	6.7	11.5	7.8	9.5	12.6	4.4	8.1
2	9.4	7.6	8.8	10.3	4.4	6.9	12.1	8.2	10.0	14.2	4.8	9.0
3	10.6	7.6	9.5	10.0	4.8	7.0	12.4	7.9	9.9	14.7	4.6	9.1
4	11.2	7.6	9.8	10.1	5.0	7.4	12.6	6.9	9.3	15.0	5.0	9.4
5	10.5	8.4	9.3	10.5	5.3	7.7	13.0	6.3	9.4	14.8	5.1	9.4
6	10.8	7.8	9.1	11.1	5.5	8.1	13.0	6.2	9.5	14.7	5.2	9.7
7	10.6	7.5	8.7	11.9	5.4	8.4	14.0	6.0	9.5	14.7	5.4	9.5
8	10.8	7.6	9.1	11.0	5.1	7.8	13.6	5.5	8.8	14.3	5.5	9.4
9	10.4	7.7	8.9	12.2	5.3	8.4	14.1	5.1	8.7	13.4	5.6	9.1
10	10.6	7.5	8.6	11.8	5.1	8.1	12.5	4.8	7.9	12.5	5.7	8.7
11	10.0	7.2	8.4	12.0	5.2	8.3	12.5	5.0	8.1	11.6	5.9	8.4
12	10.1	7.2	8.4	12.1	4.6	7.9	12.9	5.1	8.8	10.0	6.2	8.0
13	10.3	7.0	8.3	11.7	4.2	7.6	12.4	5.1	8.3	12.9	6.3	9.1
14	9.9	6.4	7.9	11.3	3.7	7.1	12.3	5.5	8.5	12.2	6.9	9.5
15	9.0	6.6	7.7	11.2	3.4	7.0	13.8	5.7	8.9	13.6	7.2	10.1
16	10.0	7.0	8.3	10.2	3.7	6.7	14.1	5.9	9.4	14.4	7.5	10.5
17	10.4	7.5	8.8	7.1	3.8	5.3	14.1	6.1	9.3	14.8	7.6	10.5
18	10.5	7.4	8.7	7.7	4.4	5.8	13.5	6.0	9.3	14.8	7.4	10.5
19	10.1	6.6	8.3	9.8	5.3	7.3	13.6	5.9	9.2	14.8	7.4	10.5
20	9.6	6.1	7.6	---	---	---	13.5	5.7	9.2	14.8	7.2	10.4
21	9.7	6.0	7.7	---	---	---	14.4	5.6	9.3	14.4	7.0	10.3
22	10.5	6.4	8.3	---	---	---	12.8	5.7	8.8	14.5	6.6	9.9
23	10.7	6.4	8.4	---	---	---	14.4	5.8	9.3	14.3	5.7	9.5
24	10.5	6.2	8.2	---	---	---	14.0	5.9	9.4	11.0	5.8	8.2
25	10.8	5.7	7.9	---	---	---	13.9	5.9	9.4	13.6	5.7	9.1
26	10.7	5.0	7.5	---	---	---	15.1	5.8	9.5	14.2	5.6	9.4
27	10.7	4.4	7.2	---	---	---	14.7	4.7	9.3	14.5	6.0	9.7
28	10.5	4.3	7.1	10.8	---	---	14.9	4.6	9.1	14.7	6.2	9.8
29	10.5	4.3	7.1	10.7	8.1	9.4	14.1	4.5	8.9	14.4	6.2	9.7
30	10.4	4.2	7.1	10.9	8.1	9.4	14.5	4.6	9.0	14.1	6.0	9.5
31	---	---	---	11.1	8.3	9.5	13.8	4.5	8.8	---	---	---
MONTH	11.2	4.2	8.4	---	---	---	15.1	4.5	9.1	15.0	4.4	9.5

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	13.5	14.0	13.0	12.0	12.5	7.0	6.5	7.0	---	---	---
2	14.5	13.5	14.0	12.5	12.0	12.0	6.5	6.5	6.5	---	---	---
3	15.0	13.5	---	12.0	11.0	11.5	6.5	6.5	6.5	---	---	---
4	---	---	---	11.0	11.0	11.0	6.5	6.0	6.5	---	---	---
5	---	---	---	11.5	10.5	11.0	6.5	6.0	6.5	---	---	---
6	---	---	---	11.0	10.5	10.5	---	---	---	---	---	---
7	17.0	14.5	15.5	11.0	10.0	10.5	---	---	---	---	---	---
8	17.5	15.0	16.0	10.5	10.0	10.0	7.0	7.0	7.0	---	---	---
9	16.5	15.0	15.5	10.0	9.5	10.0	7.0	6.0	6.5	---	---	---
10	15.5	14.5	15.0	10.0	9.5	9.5	6.5	6.0	6.0	---	---	---
11	16.5	14.5	15.0	9.5	9.0	9.0	6.0	5.5	5.5	---	---	---
12	16.5	14.0	15.0	9.0	9.0	9.0	5.5	5.5	5.5	---	---	---
13	16.0	13.5	14.5	9.5	9.0	9.0	5.5	5.0	5.5	---	---	---
14	15.5	13.0	14.5	9.5	9.0	9.0	6.0	5.0	5.5	5.5	5.0	5.0
15	15.5	13.0	14.0	9.5	9.0	9.0	6.0	5.5	5.5	5.0	4.0	4.5
16	15.0	13.0	14.0	9.5	9.0	9.5	6.5	5.5	6.0	4.0	3.0	3.5
17	14.5	13.5	14.0	10.0	9.5	9.5	6.5	5.5	6.0	3.0	2.5	2.5
18	15.0	13.5	14.0	10.0	9.5	9.5	5.5	5.5	5.5	2.5	2.0	2.5
19	14.5	13.0	13.5	9.5	9.0	9.5	---	---	---	2.5	2.0	2.5
20	14.5	13.0	13.5	9.5	9.0	9.5	---	---	---	3.0	2.5	3.0
21	15.0	13.5	14.0	9.5	9.0	9.5	---	---	---	3.0	2.5	3.0
22	15.0	13.5	14.0	---	---	---	---	---	---	3.5	3.0	3.0
23	14.5	13.5	14.0	9.5	9.0	9.0	---	---	---	4.0	3.0	3.5
24	14.5	13.5	14.0	9.0	8.5	9.0	---	---	---	5.0	4.0	4.5
25	15.0	14.0	14.5	8.5	8.0	8.5	---	---	---	6.5	5.0	6.0
26	15.0	14.5	14.5	8.0	7.5	8.0	---	---	---	7.5	6.5	7.0
27	16.0	14.5	15.0	9.0	7.5	8.0	---	---	---	7.5	7.5	7.5
28	15.0	14.0	14.5	9.0	8.5	9.0	---	---	---	7.5	6.5	7.0
29	14.0	13.5	13.5	8.5	8.0	8.5	---	---	---	7.0	6.5	7.0
30	14.0	13.0	13.5	8.0	7.0	7.5	---	---	---	7.0	6.5	7.0
31	13.5	13.0	13.0	---	---	---	---	---	---	7.5	7.0	7.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	6.5	7.0	10.0	7.0	7.0	12.0	10.5	11.5	18.0	17.0	17.0
2	---	6.0	---	8.0	7.0	7.5	12.5	11.5	12.0	17.0	16.0	16.5
3	7.5	7.5	7.5	8.5	8.0	8.5	13.0	12.0	12.5	17.0	15.5	16.5
4	7.5	7.0	7.0	10.0	8.5	9.5	13.0	12.0	12.5	17.5	17.0	17.0
5	7.5	7.0	7.0	9.5	9.0	9.5	13.0	12.0	12.5	18.5	17.0	17.5
6	7.0	7.0	7.0	---	9.0	---	12.0	11.5	11.5	20.5	---	---
7	7.0	6.5	7.0	---	---	---	13.0	11.5	12.0	22.5	20.0	---
8	7.5	7.0	7.0	---	---	---	14.0	12.0	13.0	---	---	---
9	7.5	7.0	7.0	9.0	8.5	8.5	14.0	12 5	13.5	---	---	---
10	7.5	7.5	7.5	9.0	8.5	8.5	14.0	12.5	13.0	25.0	---	---
11	8.5	7.5	8.0	9.0	9.0	9.0	12.5	12.0	12.5	24.5	22.5	23.5
12	8.0	7.5	8.0	9.0	9.0	9.0	12.5	11.0	12.0	---	---	---
13	8.0	7.5	7.5	9.0	8.5	8.5	13.0	11.0	12.0	23.5	---	---
14	7.5	7.0	7.0	9.0	8.5	8.5	---	12.0	---	24.0	22.0	23.0
15	7.5	7.0	7.0	9.0	8.0	8.5	---	---	---	22.5	20.5	22.0
16	7.5	7.0	7.0	9.0	7.5	8.5	15.5	14.0	15.0	21.0	19.5	20.0
17	7.5	7.0	7.5	9.0	8.5	9.0	15.5	14.0	14.5	20.0	18.5	19.0
18	8.0	7.0	7.5	8.5	8.0	8.5	14.0	13.0	13.5	20.0	17.5	18.5
19	7.5	6.5	7.0	8.0	7.0	7.5	13.5	12.0	12.5	19.5	16.5	18.0
20	7.0	6.5	7.0	7.5	7.0	7.5	13.5	12.0	13.0	20.0	16.5	18.5
21	7.0	6.5	7.0	8.0	7.0	7.5	14.5	12.5	13.5	21.0	17.5	19.0
22	7.0	6.5	6.5	8.5	7.0	8.0	17.5	14.0	15.0	21.5	18.0	19.5
23	7.0	6.0	6.5	9.5	8.0	8.5	---	---	---	21.0	18.5	19.5
24	6.0	5.5	6.0	9.5	8.0	9.0	---	---	---	19.0	18.0	18.5
25	6.0	5.0	5.5	9.5	8.0	8.5	---	---	---	18.0	16.5	17.5
26	6.0	5.0	5.5	---	8.0	---	---	---	---	19.0	16.0	17.5
27	6.5	5.0	6.0	10.0	8.5	9.0	---	---	---	18.0	16.5	17.0
28	7.5	6.5	7.0	10.0	8.5	9.0	19.0	---	---	18.5	16.0	17.5
29	---	---	---	10.0	8.5	9.0	19.0	18.0	18.5	20.5	17.0	18.5
30	---	---	---	10.5	9.0	10.0	19.0	17.5	18.5	19.5	18.0	18.5
31	---	---	---	11.5	10.0	10.5	---	---	---	19.0	17.0	18.0
MONTH	---	5.0	---	---	---	---	---	---	---	---	---	---

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.5	16.5	18.5	28.5	25.5	27.0	24.5	21.0	23.0	25.5	23.5	25.0
2	22.0	17.5	19.5	28.0	24.5	26.0	25.0	21.0	23.0	26.0	22.5	24.5
3	23.5	19.0	21.5	26.0	24.0	25.0	26.5	22.0	24.0	25.0	22.5	23.5
4	25.0	21.0	23.0	25.5	23.0	24.0	27.0	23.0	25.0	25.0	21.5	23.0
5	24.0	21.5	22.5	25.0	22.0	23.5	27.5	23.5	25.5	25.0	21.5	23.0
6	24.0	21.0	22.5	25.5	22.0	23.5	27.0	23.5	25.0	24.5	21.5	23.0
7	25.0	21.0	23.0	25.5	22.0	23.5	27.5	23.0	25.5	24.0	21.0	22.5
8	26.0	22.0	24.0	23.5	22.5	23.0	26.5	24.0	26.0	24.0	21.0	22.5
9	26.0	22.5	24.0	25.0	21.5	23.0	28.0	24.0	26.0	23.0	21.0	22.5
10	26.0	22.0	24.0	24.5	22.0	23.0	26.5	24.0	25.0	22.0	21.0	21.5
11	26.0	22.0	24.0	26.5	22.0	24.0	26.0	23.5	24.5	21.0	20.0	20.5
12	26.5	22.0	24.5	27.5	23.0	25.5	26.5	23.0	24.5	20.5	19.5	20.0
13	27.5	23.0	25.0	29.0	24.0	26.5	24.5	23.0	24.0	21.0	19.0	19.5
14	26.5	24.0	25.0	29.5	25.0	27.0	24.5	22.5	23.5	19.5	18.0	19.0
15	24.0	22.5	23.0	28.0	25.0	26.5	25.0	22.0	23.0	20.0	17.0	18.5
16	22.5	20.5	21.5	25.0	23.0	24.0	24.5	21.5	23.0	19.5	16.5	18.0
17	23.0	19.5	21.5	23.0	21.0	22.0	25.0	21.0	23.0	20.0	16.5	18.0
18	24.0	20.0	22.0	21.0	20.0	20.5	25.0	21.0	23.0	20.0	16.5	18.5
19	25.5	20.5	23.0	23.5	19.5	21.0	25.5	21.5	23.5	20.5	16.5	18.5
20	23.5	21.5	22.5	---	---	---	25.0	21.5	23.5	20.5	17.0	18.5
21	23.0	21.0	22.0	---	---	---	25.0	21.5	23.0	20.5	17.5	19.0
22	23.5	19.5	21.5	---	---	---	24.0	21.5	22.5	21.5	18.0	19.5
23	24.5	20.0	22.0	---	---	---	25.0	21.5	23.0	21.0	18.5	20.0
24	25.5	21.0	23.5	---	---	---	25.5	21.5	23.5	19.5	18.5	19.0
25	27.0	22.5	24.5	---	---	---	25.5	22.0	24.0	20.0	18.0	19.0
26	28.0	23.5	26.0	---	---	---	26.0	22.5	24.0	20.0	18.0	19.0
27	29.0	25.0	27.0	---	---	---	26.0	22.5	24.0	19.5	16.5	18.0
28	29.0	25.0	27.0	24.5	---	---	26.5	22.5	24.5	20.0	16.5	18.5
29	29.5	25.5	27.5	24.5	21.5	23.0	26.0	22.5	24.5	20.0	17.0	18.5
30	29.5	26.0	27.5	24.0	22.0	23.0	27.0	23.0	25.0	20.5	17.0	18.5
31	---	---	---	24.5	21.0	22.5	27.5	24.0	26.0	---	---	---
MONTH	29.5	16.5	23.5	---	---	---	28.5	21.0	24.0	26.0	16.5	20.5

14313000 LEMOLO LAKE NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°19'10", long 122°11'20", in SE 1/4 NW 1/4 sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, at Lemolo No. 1 diversion dam on North Umpqua River, 0.8 mi downstream from Lake Creek, 13.0 mi east of town of Toketee Falls, and at mile 93.01.

DRAINAGE AREA.--170 mi^2.

PERIOD OF RECORD.--July 1954 to current year. Prior to October 1960, published as Lemolo Reservoir near Toketee Falls.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.).

REMARKS.--Lake is formed by Lemolo No 1 diversion dam. Storage began July 15, 1954. Usable capacity for normal operation, 12,520 acre-ft between elevations 4,097.0 ft and 4,148.5 ft. Dead storage below 4,097.0 ft, 1,040 acre-ft. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Gage readings furnished by Pacific Power & Light Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 14,000 acre-ft Dec. 24, 1964, elevation, 4,149.5 ft; minimum observed, 11 acre-ft Mar. 5, 1955, elevation, 4,055.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 13,490 acre-ft Aug. 26, elevation, 4,148.52 ft; minimum observed, 1,820 acre-ft Jan. 20, elevation, 4,105.47 ft.

MONTHEND ELEVATION AND CONTENTS AT 0900, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	4,143.5	11,540	--
Oct. 31	4,118.6	3,930	-7,610
Nov. 30	4,119.9	4,240	+310
Dec. 31	4,113.7	2,950	-1,290
CAL YR 1986	--	--	-1,260
Jan. 31	4,120.2	4,310	+1,360
Feb. 28	4,108.8	2,220	-2,090
Mar. 31	4,108.6	2,200	-20
Apr. 30	4,133.5	8,070	+5,870
May 31	4,146.8	12,850	+4,780
June 30	4,146.8	12,850	0
July 31	4,147.4	13,100	+250
Aug. 31	4,148.0	13,350	+250
Sept.30	4,131.2	7,350	-6,000
WTR YR 1987	--	--	-4,190

14313500 NORTH UMPQUA RIVER BELOW LEMOLO LAKE, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°19'20", long 122°11'40", in NW 1/4 NW 1/4 sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on right bank 0.4 mi downstream from Lemolo Lake, 13 mi east of town of Toketee Falls, and at mile 92.6.

DRAINAGE AREA.--170 mi^2 (see REMARKS).

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Records since October 1983 are equivalent to earlier records if diversion to Lemolo No. 1 power canal is added to flow past station. Published as "below Lake Creek" prior to October 1952, as "below Lake Creek, near Toketee Falls" October 1952 to September 1953, and as "below Lemolo Reservoir near Toketee Falls" October 1953 to September 1960.

REVISED RECORDS.--WSP 1448: Drainage area. WRD OR-75-1: 1964(M).

GAGE.--Water-stage recorder. Elevation of gage is 4,025 ft, from river-profile map. Prior to July 15, 1954, at site 1 mi upstream at datum about 65 ft higher. July 15, 1954, to Sept. 25, 1955, at site 400 ft upstream at datum 14.11 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since 1954 by Lemolo Lake (station 14313000); also slightly regulated by Diamond Lake. Records given herein do not include flow in Lemolo No. 1 power canal which, beginning July 1955, diverts 0.4 mi upstream from station for power generation with return flow 4.3 mi downstream.

AVERAGE DISCHARGE.--55 years (1928-83), 423 ft^3/s, 33.79 in/yr, 306,500 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 4,600 ft^3/s Dec. 25, 1964, from rating curve extended above 450 ft^3/s on basis of slope-area measurement of peak flow, gage height, 9.20 ft, from floodmark; minimum discharge, 6.4 ft^3/s July 17, 1954.

Combined flow, maximum discharge, 4,680 ft^3/s Dec. 25, 1964, from river rating curve extended above 450 ft^3/s on basis of slope-area measurement of peak flow; minimum daily, 9.7 ft^3/s May 13, 1955.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 452 ft^3/s May 16, gage height, 6.33 ft; minimum discharge, 23 ft^3/s Apr. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	27	29	28	31	27	28	300	34	31	31	32
2	28	27	29	28	31	27	28	300	33	32	32	32
3	28	27	29	29	32	27	28	302	32	32	32	32
4	28	27	29	29	32	27	28	303	31	32	32	32
5	28	26	28	30	32	27	28	304	30	33	32	31
6	28	27	28	30	32	27	28	377	30	34	32	31
7	28	27	28	30	32	28	28	425	30	35	32	31
8	27	27	28	29	32	28	29	427	30	36	32	31
9	26	27	27	29	31	28	29	428	30	36	32	31
10	26	27	27	29	31	28	29	430	30	36	32	31
11	26	27	27	29	30	28	30	431	29	35	32	31
12	26	27	27	29	30	28	30	433	29	35	32	31
13	26	27	27	28	30	29	30	434	29	33	32	31
14	26	27	27	28	30	29	30	433	29	33	32	31
15	28	27	27	27	30	29	30	435	29	33	32	31
16	29	27	27	27	30	29	28	436	29	32	32	30
17	29	27	27	26	30	29	27	436	29	32	32	29
18	29	27	28	26	30	29	27	437	29	33	32	29
19	29	28	28	26	30	29	27	435	29	32	32	29
20	28	28	28	26	29	28	184	437	29	32	32	29
21	28	28	28	26	29	28	269	313	30	32	32	29
22	28	28	28	26	29	28	272	163	30	32	32	28
23	28	28	28	26	28	28	276	32	29	32	32	28
24	27	28	28	27	28	28	280	30	29	32	32	28
25	27	28	27	28	27	28	282	30	29	32	39	27
26	27	28	27	28	27	28	285	30	29	32	33	27
27	27	28	27	29	27	28	290	31	29	32	32	27
28	26	29	27	29	27	28	293	30	30	32	32	26
29	26	65	27	30	---	28	296	30	30	32	31	26
30	27	29	27	30	---	28	298	30	31	31	31	26
31	28	---	27	30	---	28	---	30	---	31	32	---
TOTAL	851	860	856	872	837	869	3567	8692	896	1017	997	887
MEAN	27.5	28.7	27.6	28.1	29.9	28.0	119	280	29.9	32.8	32.2	29.6
MAX	29	65	29	30	32	29	298	437	34	36	39	32
MIN	26	26	27	26	27	27	27	30	29	31	31	26
AC-FT	1690	1710	1700	1730	1660	1720	7080	17240	1780	2020	1980	1760

CAL YR 1986 TOTAL 21996 MEAN 60.3 MAX 466 MIN 26 AC-FT 43630
WTR YR 1987 TOTAL 21201 MEAN 58.1 MAX 437 MIN 26 AC-FT 42050

14314500 CLEARWATER RIVER ABOVE TRAP CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°14′40", long 122°17′10", in SW 1/4 sec.1, T.27 S., R.4 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on right bank 900 ft downstream from Clearwater No. 1 diversion dam, 0.4 mi upstream from Trap Creek, 8.7 mi east of town of Toketee Falls, and at mile 7.8.

DRAINAGE AREA.--41.6 mi^2. (See REMARKS.)

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Records since October 1983 are equivalent to earlier records if diversion to Clearwater No. 1 power canal is added to flow past station. Monthly discharge only December 1927 to March 1928, published in WSP 1318. Prior to October 1952, published as "above Trap Creek."

REVISED RECORDS.--WSP 1124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,862.84 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.). Prior to Dec. 1, 1953, at two sites about 0.4 mi downstream at different datums.

REMARKS.--No estimated daily discharges. Records good. Records after September 1983 do not include flow in Clearwater No. 1 power canal, completed in June 1953, which diverts 900 ft upstream from station for generation of power and returns water to Clearwater River 2.5 mi downstream from station.

AVERAGE DISCHARGE.--55 years (1928-83), 173 ft^3/s, 125,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 849 ft^3/s Dec. 23, 1964, gage height, 7.19 ft; maximum gage height, [illegible].87 ft Dec. 23, 1964, log jam; minimum discharge, 0.08 ft^3/s Sept. 21, 1977, result of beavers plugging release gate at diversion dam 900 ft upstream.

Combined flow, maximum discharge, 1,020 ft^3/s Dec. 23, 1964; minimum daily, 91 ft^3/s Nov. 4-6, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 10 ft^3/s Apr. 28, gage height, 2.29 ft; minimum discharge, 4.2 ft^3/s Sept. 2, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.7	5.7	5.4	6.0	6.1	6.3	7.3	5.8	6.3	5.5	4.4
2	5.6	5.7	5.7	5.3	6.0	6.1	6.4	6.8	5.7	6.1	5.5	4.4
3	5.5	5.7	5.6	5.5	5.9	6.2	6.5	6.6	5.7	6.0	5.5	4.4
4	5.5	5.7	5.6	5.3	5.9	6.4	6.5	6.5	5.8	5.9	5.5	4.7
5	5.5	5.7	5.7	5.3	5.7	6.5	6.5	6.7	5.7	5.9	5.5	5.0
6	5.5	5.7	5.6	5.3	5.7	6.5	6.5	6.9	5.7	5.9	5.7	5.1
7	5.5	5.7	5.5	5.3	5.8	6.3	6.5	7.2	5.7	5.9	5.7	5.1
8	5.5	5.7	5.5	5.3	5.9	6.3	6.5	7.7	5.7	6.0	5.7	5.1
9	5.5	5.9	5.5	5.3	6.0	6.3	6.5	7.5	5.7	5.9	5.6	5.1
10	5.5	5.8	5.5	5.2	6.1	6.3	6.8	7.1	5.7	6.1	5.3	5.1
11	5.5	5.7	5.5	5.1	6.1	6.4	7.4	6.8	5.7	6.0	5.3	5.0
12	5.5	5.7	5.5	5.3	6.2	6.9	6.8	6.7	5.7	5.9	5.3	5.1
13	5.5	5.7	5.6	5.3	6.6	6.8	6.7	6.7	5.7	5.9	5.3	5.1
14	5.5	5.7	5.5	5.3	6.4	6.7	6.7	6.7	5.7	5.9	5.3	5.0
15	5.5	5.7	5.5	5.3	6.3	6.5	6.7	6.6	5.7	5.9	5.3	5.1
16	5.6	5.7	5.5	5.3	6.4	6.5	6.9	6.6	5.7	5.9	5.3	5.3
17	5.7	5.7	5.5	5.3	[illegible]	6.5	7.2	6.4	5.7	6.0	5.3	5.2
18	5.7	5.8	5.5	5.3	6.3	6.5	7.2	6.3	5.7	6.5	5.2	5.2
19	5.7	5.7	5.5	5.3	6.3	6.4	6.8	6.3	5.7	6.1	5.1	5.1
20	5.7	5.8	5.5	5.3	6.3	6.3	6.7	6.2	5.7	5.9	5.1	5.1
21	5.7	6.1	5.3	5.3	6.3	6.3	6.7	6.1	5.9	5.8	5.1	5.1
22	5.7	5.9	5.4	5.3	6.3	6.3	6.9	6.1	5.9	6.3	5.1	5.1
23	5.7	5.8	5.3	5.3	6.3	6.4	7.1	6.1	5.9	5.9	5.2	5.1
24	5.5	5.8	5.3	5.5	6.1	6.3	7.2	6.2	5.8	5.8	5.1	5.1
25	5.5	5.7	5.3	6.0	6.2	6.3	7.1	6.0	5.9	5.7	5.1	5.1
26	5.7	5.7	5.3	5.9	6.1	6.3	6.9	5.9	5.9	5.7	5.1	5.1
27	6.0	6.1	5.3	6.0	6.1	6.3	7.5	5.9	5.9	5.6	5.1	5.1
28	5.7	6.0	5.3	5.9	6.1	6.3	9.3	5.7	6.1	5.6	5.0	5.1
29	5.9	5.7	5.3	5.7	---	6.3	8.8	5.7	6.1	5.6	4.8	5.1
30	6.1	5.7	5.3	5.7	---	6.3	8.2	5.7	6.1	5.6	4.7	5.1
31	5.9	---	5.3	5.7	---	6.3	---	6.0	---	5.5	4.5	---
TOTAL	174.6	173.0	169.4	168.3	171.8	197.9	209.8	201.0	173.7	183.1	162.8	150.6
MEAN	5.63	5.77	5.46	5.43	6.14	6.38	6.99	6.48	5.79	5.91	5.25	5.02
MAX	6.1	6.1	5.7	6.0	6.6	6.9	9.3	7.7	6.1	6.5	5.7	5.3
MIN	5.5	5.7	5.3	5.1	5.7	6.1	6.3	5.7	5.7	5.5	4.5	4.4
AC-FT	346	343	336	334	341	393	416	399	345	363	323	299

CAL YR 1986 TOTAL 5949.1 MEAN 16.3 MAX 209 MIN 2.0 AC-FT 11800
WTR YR 1987 TOTAL 2136.0 MEAN 5.85 MAX 9.3 MIN 4.4 AC-FT 4240

14316000 FISH CREEK AT BIG CAMAS RANGER STATION, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°13'50", long 122°26'45", in SE 1/4 sec.10, T.27 S., R.3 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, 0.2 mi upstream from Camas Creek, 0.7 mi east of Big Camas ranger station, 3.2 mi south of town of Toketee Falls, and at mile 4.7.

DRAINAGE AREA.--68.8 mi^2 (see REMARKS).

PERIOD OF RECORD.--October 1947 to current year. Records since October 1983 are equivalent to earlier records if diversion to Fish Creek power canal is added to flow past station. Prior to October 1952, published as "at Big Camas ranger station."

REVISED RECORDS.--WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,858.52 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.). Prior to July 10, 1951, water-stage recorder and July 10 to Aug. 10, 1951, nonrecording gage at site 1,000 ft upstream at datum 13.72 ft higher. Aug. 11 to Nov. 3, 1951, nonrecording gage at site 200 ft downstream at different datum. Nov. 4, 1951, to Sept. 30, 1956, water-stage recorder at present site at datum 1.92 ft higher.

REMARKS.--No estimated daily discharges. Records good. Several mesurements of water temperature were made during the year Records given herein do not include flow in Fish Creek power canal (diversion began June 18, 1952), which diverts water 2 mi upstream from station for power generation at Fish Creek powerplant; diversion discharged to North Umpqua River 600 ft downstream from Toketee powerplant.

AVERAGE DISCHARGE.--36 years (1947-83), 237 ft^3/s, 46.78 in/yr, 171,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 12,100 ft^3/s Dec. 22, 1964, gage height, 13.9 ft, from floodmark; minimum discharge, 2.3 ft^3/s Sept. 25, 1957.

Combined flow, maximum discharge, 12,100 ft^3/s Dec. 22, 1964; minimum daily, 19 ft^3/s July 30, 1979, result of diversion dam manipulation.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 531 ft^3/s Nov. 27, Jan. 26, gage height, 4.78 ft; minimum discharge, 12 ft^3/s July 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	138	238	54	293	24	42	196	50	25	18	40
2	100	112	214	58	382	25	60	150	36	24	38	39
3	91	98	196	70	298	32	78	145	31	20	60	39
4	94	88	190	52	232	51	76	147	28	19	58	38
5	99	81	198	40	184	145	72	174	25	20	57	38
6	98	80	184	33	156	169	59	207	22	22	55	38
7	92	88	170	27	138	118	58	216	26	21	54	37
8	82	82	158	30	123	96	97	211	32	21	53	37
9	75	102	147	21	117	81	99	195	28	20	52	37
10	70	120	139	20	114	69	125	166	26	20	51	37
11	66	103	131	19	137	80	154	139	27	20	50	37
12	62	100	131	19	132	210	112	125	31	21	50	37
13	59	101	150	18	311	249	93	104	28	20	50	37
14	44	101	149	17	260	215	101	80	27	19	50	37
15	39	96	123	16	208	168	125	65	28	20	49	37
16	54	90	124	39	161	129	143	54	30	23	48	37
17	58	101	121	49	131	119	166	41	28	41	47	36
18	61	126	121	24	106	111	139	32	24	112	46	36
19	56	171	117	16	82	84	104	25	24	61	46	35
20	54	212	110	17	63	67	87	19	28	37	45	35
21	52	326	105	14	53	57	102	17	60	32	45	34
22	51	339	126	13	45	48	152	18	38	86	45	34
23	50	307	120	14	40	50	184	21	30	30	45	33
24	50	289	85	25	35	43	182	23	27	47	43	33
25	49	251	81	250	43	41	169	20	25	45	43	34
26	55	261	88	466	28	39	180	19	22	29	42	34
27	113	410	82	404	27	35	237	23	20	22	42	34
28	73	412	76	339	26	33	308	19	21	20	41	33
29	96	320	50	240	---	30	266	21	22	22	41	32
30	197	267	22	179	---	30	236	34	23	20	40	32
31	188	---	51	174	---	33	---	76	---	18	41	---
TOTAL	2442	5372	3999	2757	3925	2681	4006	2782	867	957	1445	1077
MEAN	78.8	179	129	88.9	140	86.5	134	89.7	28.9	30.9	46.6	35.9
MAX	197	412	238	466	382	249	308	216	60	112	60	40
MIN	39	80	22	13	26	24	42	17	20	18	18	32
AC-FT	4840	10660	7930	5470	7790	5320	7950	5520	1720	1900	2870	2140
CFSM	1.14	2.60	1.87	1.29	2.04	1.26	1.94	1.30	.42	.45	.68	.52
IN.	1.32	2.90	2.16	1.49	2.12	1.45	2.17	1.50	.47	.52	.78	.58

CAL YR 1986 TOTAL 59878.5 MEAN 164 MAX 2840 MIN 22 AC-FT 118800 CFSM 2.38 IN. 32.38
WTR YR 1987 TOTAL 32310 MEAN 88.5 MAX 466 MIN 13 AC-FT 64090 CFSM 1.29 IN. 17.47

14316500 NORTH UMPQUA RIVER ABOVE COPELAND CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°17′45", long 122°32′10", in NW 1/4 sec.24, T.26 S., R.2 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on left bank 0.6 mi upstream from Copeland Creek, 4.7 mi west of town of Toketee Falls, and at mile 67.2.

DRAINAGE AREA.--475 mi^2.

PERIOD OF RECORD.--September 1949 to current year. Monthly discharge only September 1949, published in WSP 1318. Prior to October 1952, published as "above Copeland Creek."

REVISED RECORDS.--WSP 1448: 1953(M), 1954, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,580 ft, from river-profile map. Prior to Aug. 1, 1976, on right bank at same datum.

REMARKS.--No estimated daily discharges. Records excellent. Considerable fluctuation caused by powerplants upstream; flow slightly regulated by Diamond Lake and by Lemolo Lake (station 14313000). No diversion upsream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 1,510 ft^3/s, 1,094,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,700 ft^3/s Dec. 22, 1964, gage height, 19.1 ft, from floodmark, from rating curve extended above 7,200 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 370 ft^3/s Sept. 30, 1981; minimum daily, 565 ft^3/s Sept. 13, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,590 ft^3/s Jan. 25, gage height, 8.11 ft; minimum discharge, 590 ft^3/s Aug. 31; minimum daily, 672 ft^3/s Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	1200	1740	1130	2350	1170	1300	1500	1000	790	851	720
2	1150	1110	1580	1370	3020	1170	1340	1440	1030	835	765	713
3	1120	1120	1490	1240	2450	1220	1370	1380	1040	801	769	749
4	1090	1020	1400	1250	2030	1330	1370	1370	1110	776	873	763
5	1100	1020	1270	1210	1850	1470	1350	1370	1160	757	810	738
6	1090	1020	1480	1190	1850	1660	1330	1480	1100	756	778	703
7	1080	1020	1420	1180	1880	1470	1270	1620	941	758	778	704
8	1060	936	1210	1270	1820	1360	1380	1610	912	758	772	705
9	1060	1070	1300	1260	1780	1350	1390	1630	888	786	771	705
10	1070	1190	1160	1300	1670	1430	1400	1550	954	918	767	699
11	1070	1070	1110	1200	1840	1250	1520	1430	980	819	735	672
12	1060	989	1070	1210	1780	1420	1550	1440	978	745	737	759
13	1030	1010	1110	1270	1890	1910	1370	1330	942	760	773	699
14	1020	1080	1170	1190	1910	1890	1340	1290	899	784	749	794
15	1010	1020	1110	1130	1890	1850	1410	1330	946	784	750	923
16	960	932	1060	1150	1860	1770	1400	1330	948	779	749	920
17	997	939	1060	989	1830	1600	1530	1240	956	785	750	891
18	1050	1050	1060	937	1780	1830	1720	1210	897	1180	748	891
19	1050	1300	1050	978	1720	1690	1520	1220	836	1180	728	894
20	953	1440	1030	990	1630	1590	1390	1120	874	808	710	916
21	842	2110	1010	958	1580	1490	1300	1030	875	848	706	916
22	966	2230	1040	962	1570	1320	1340	970	938	1400	735	892
23	1000	2110	1150	988	1450	1530	1410	1110	928	1040	744	830
24	1010	2000	1130	1230	1440	1470	1450	1120	896	1000	746	750
25	967	1770	1110	2330	1240	1390	1410	1050	852	894	737	830
26	992	1540	1110	3120	1250	1340	1450	1040	813	858	701	915
27	1190	2310	1110	2690	1200	1290	1470	1040	802	934	706	907
28	1010	2690	1060	2530	1170	1260	1680	1050	797	847	819	908
29	1050	2000	1060	2650	---	1270	1670	1080	734	1010	764	868
30	1340	1830	1060	1920	---	1280	1510	1000	761	820	701	817
31	1370	---	969	1930	---	1200	---	994	---	888	704	---
TOTAL	32937	42126	36689	44152	49730	45260	42940	39374	27787	27098	23426	24191
MEAN	1062	1404	1184	1424	1776	1460	1431	1270	926	874	756	806
MAX	1370	2690	1740	3120	3020	1910	1720	1630	1160	1400	873	923
MIN	842	932	969	937	1170	1170	1270	970	734	745	701	672
AC-FT	65330	83560	72770	87580	98640	89770	85170	78100	55120	53750	46470	47980

CAL YR 1986 TOTAL 556940 MEAN 1526 MAX 10700 MIN 780 AC-FT 1105000
WTR YR 1987 TOTAL 435710 MEAN 1194 MAX 3120 MIN 672 AC-FT 864200

14316700 STEAMBOAT CREEK NEAR GLIDE, OR

LOCATION.--Lat 43°21'00", long 122°43'40", in N 1/2 sec.32, T.25-1/2 S., R.1 E., Douglas County, Hydrologic Unit 17100301, in Umpqua National Forest, on right bank in Canton Creek Forest Service Park, 200 ft downstream from Canton Creek, 19 mi northeast of Glide, and at mile 0.5.

DRAINAGE AREA.--227 mi^2.

PERIOD OF RECORD.--Annual maximum, water year 1956, June 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,128.55 ft above National Geodetic Vertical Datum of 1929 (levels by Federal Highway Administration). October 1955 to June 1956, nonrecording gage at site 100 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upsream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 743 ft^3/s, 44.45 in/yr, 538,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft^3/s Dec. 22, 1964, gage height, 25.6 ft, from floodmark, from rating curve extended above 13,000 ft^3/s on basis of slope-area measurement at 17.96 ft; minimum discharge, 30 ft^3/s Sept. 15-17, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 27	1630	*10,200	*10.43	Jan. 25	1930	8,180	9.29

Minimum discharge, 33 ft^3/s Sept. 24, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	307	749	1270	1950	3910	417	501	281	182	59	82	38
2	228	424	952	2640	5310	412	509	300	144	59	78	38
3	183	288	764	1870	2850	472	501	301	124	56	75	38
4	156	223	640	1580	1870	583	455	297	113	55	71	37
5	141	187	570	1070	1360	624	408	276	106	55	67	37
6	126	172	500	801	1100	663	384	269	102	55	65	37
7	114	457	433	641	962	562	362	257	97	54	63	37
8	103	789	384	541	839	504	390	241	95	54	61	36
9	96	1270	347	465	747	485	379	246	91	52	59	37
10	91	1310	316	414	667	453	378	212	89	52	56	37
11	86	721	296	419	727	485	500	191	85	52	56	36
12	82	557	326	461	667	1060	508	180	82	50	55	37
13	78	456	339	484	1660	1690	460	179	79	49	54	38
14	76	444	468	472	2240	2120	410	163	77	47	55	38
15	74	442	416	439	1660	1810	382	155	78	45	54	38
16	72	366	366	397	1540	1200	365	147	79	44	52	37
17	77	470	329	368	1430	1070	372	137	78	50	51	37
18	86	644	310	343	1360	1300	375	131	76	317	50	36
19	79	1180	321	317	1130	1200	340	124	73	550	49	35
20	74	1260	310	295	937	1040	320	120	73	223	47	35
21	70	2600	288	289	818	897	312	117	98	243	46	34
22	68	4810	287	312	717	761	325	112	92	952	46	34
23	67	3220	442	429	679	945	335	110	78	480	48	34
24	70	2040	504	1810	623	1140	314	115	73	260	45	34
25	67	1550	492	5780	562	992	289	143	69	185	44	34
26	74	1470	616	5120	507	856	270	130	67	149	42	34
27	241	6460	604	3430	464	722	285	120	64	126	42	34
28	202	7630	502	3240	433	617	306	117	62	112	41	34
29	164	3290	473	2160	---	546	272	110	61	102	40	34
30	889	1860	494	1560	---	498	257	109	60	94	40	33
31	1150	---	480	1980	---	488	---	164	---	88	39	---
TOTAL	5391	47339	14839	42077	37769	26612	11264	5554	2647	4769	1673	1078
MEAN	174	1578	479	1357	1349	858	375	179	88.2	154	54.0	35.9
MAX	1150	7630	1270	5780	5310	2120	509	301	182	952	82	38
MIN	67	172	287	289	433	412	257	109	60	44	39	33
AC-FT	10690	93900	29430	83460	74910	52780	22340	11020	5250	9460	3320	2140
CFSM	.77	6.95	2.11	5.98	5.94	3.78	1.65	.79	.39	.68	.24	.16
IN.	.88	7.76	2.43	6.90	6.19	4.36	1.85	.91	.43	.78	.27	.18

CAL YR 1986 TOTAL 286690 MEAN 785 MAX 16700 MIN 37 AC-FT 568600 CFSM 3.46 IN. 46.98
WTR YR 1987 TOTAL 201012 MEAN 551 MAX 7630 MIN 33 AC-FT 398700 CFSM 2.43 IN. 32.94

14318000 LITTLE RIVER AT PEEL, OR

LOCATION.--Lat 43°15'10", long 123°01'30", in NW 1/4 sec.2, T.27 S., R.3 W., Douglas County, Hydrologic Unit 17100301, on left bank 0.6 mi southeast of Peel, 0.9 mi downstream from Cavitt Creek, and at mile 6.3.

DRAINAGE AREA.--177 mi^2.

PERIOD OF RECORD.--August 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. No regulation. Small diversions for rural domestic use and irrigation upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 472 ft^3/s, 36.21 in/yr, 342,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft^3/s Dec. 11, 1956, gage height, 19.63 ft, from rating curve extended above 5,900 ft^3/s on basis of slope-area measurement at gage height 16.55 ft; minimum discharge, 14 ft^3/s at times in 1967, 1974, 1977, 1986, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 22, 23, 1953, reached a stage of 20.6 ft, from floodmark, discharge, 22,700 ft^3/s, from rating curve extended above 5,900 ft^3/s on basis of slope-area measurement at gage height 16.55 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	1030	*5,870	*10.01				

Minimum discharge, 14 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	233	321	864	1110	2310	295	344	179	125	29	59	19
2	183	238	638	1560	3630	288	338	218	97	29	55	19
3	148	183	500	1090	1810	316	336	191	84	29	51	19
4	124	149	412	853	1160	367	317	173	76	29	47	19
5	108	127	374	633	850	413	288	159	70	28	43	19
6	97	116	335	489	673	437	270	148	68	28	41	19
7	87	339	294	396	566	371	254	137	65	27	40	17
8	79	464	263	333	493	334	260	125	62	27	38	18
9	74	580	239	290	444	324	247	115	58	27	34	18
10	70	768	218	258	403	296	248	107	57	27	33	18
11	67	482	200	238	436	308	313	99	54	27	33	18
12	63	353	205	271	397	459	307	97	51	25	33	19
13	59	283	211	323	741	652	276	96	49	23	32	20
14	57	270	249	352	1210	783	252	89	46	22	32	20
15	55	265	225	340	898	790	234	87	47	21	32	20
16	54	225	203	291	799	673	220	87	50	20	31	19
17	58	224	186	264	785	765	221	83	48	24	30	19
18	70	247	180	243	818	1110	260	81	46	240	29	18
19	61	437	196	222	718	1000	266	77	43	368	27	17
20	56	609	185	203	602	824	265	75	42	181	26	16
21	52	1790	172	194	573	687	250	73	52	126	25	16
22	51	3090	180	195	529	582	235	70	51	686	25	15
23	49	1870	232	246	523	834	221	69	43	383	26	15
24	51	1170	266	888	475	929	203	81	40	224	26	15
25	49	921	270	2610	422	775	187	112	37	157	24	16
26	61	887	359	2970	376	655	175	97	34	120	23	16
27	228	2800	348	2250	340	544	167	85	33	99	22	16
28	171	4500	296	1980	314	464	161	79	32	86	21	16
29	165	2320	294	1260	---	406	151	74	30	77	20	16
30	454	1270	293	914	---	367	149	71	30	71	20	15
31	420	---	278	848	---	349	---	129	---	65	20	---
TOTAL	3554	27298	9165	24114	23295	17397	7405	3363	1620	3325	998	527
MEAN	115	910	296	778	832	561	247	108	54.0	107	32.2	17.6
MAX	454	4500	864	2970	3630	1110	344	218	125	686	59	20
MIN	49	116	172	194	314	288	149	69	30	20	20	15
AC-FT	7050	54150	18180	47830	46210	34510	14690	6670	3210	6600	1980	1050
CFSM	.65	5.14	1.67	4.39	4.70	3.17	1.39	.61	.31	.61	.18	.10
IN.	.75	5.74	1.93	5.07	4.90	3.66	1.56	.71	.34	.70	.21	.11

CAL YR 1986 TOTAL 172727 MEAN 473 MAX 8290 MIN 14 AC-FT 342600 CFSM 2.67 IN. 36.30
WTR YR 1987 TOTAL 122061 MEAN 334 MAX 4500 MIN 15 AC-FT 242100 CFSM 1.89 IN. 25.65

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR

LOCATION.--Lat 43°16'20", long 123°24'40", in NW 1/4 NE 1/4 sec.33, T.26 S., R.6 W., Douglas County, Hydrologic Unit 17100301, on left bank 400 ft downstream from county bridge, 3.0 mi west of Winchester, and at mile 1.8.

DRAINAGE AREA.--1,344 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1908 to December 1913, October 1923 to September 1929, August 1954 to current year. Prior to December 1908, monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1448: 1909-12, drainage area. WDR OR-72-1: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 372.97 ft above National Geodetic Vertical Datum of 1929 (Douglas County Road Department bench mark). Oct. 1, 1908, to Dec. 31, 1913, and Oct. 1, 1923, to Sept. 30, 1929, nonrecording gage at site 4.8 mi upstream at different datums. Aug. 27, 1954, to Aug. 12, 1965, water-stage recorder on right bank at same datum.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Diurnal fluctuation caused by upstream powerplants; slight regulation by Lemolo Lake and Diamond Lake. Several small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--44 years, 3,776 ft^3/s, 38.15 in/yr, 2,736,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft^3/s Dec. 22, 1964, gage height, 34.2 ft, from floodmark; minimum discharge, 235 ft^3/s Aug. 27, 1987, result of regulation at Winchester Dam 5.2 mi upstream; minimum daily, 578 ft^3/s Sept. 14, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of 23.2 ft, from floodmark, at site 4.8 mi upstream at different datum, discharge, 88,000 ft^3/s. Flood of Nov. 23, 1953, reached a stage of 28.4 ft, from floodmarks, present site and datum, discharge, 93,300 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	1100	20,800	10.25	Jan. 26	0230	25,400	11.56
Nov. 28	1230	*31,800	*13.33	Feb. 2	0900	25,600	11.63

Minimum discharge, 235 ft^3/s Aug. 27, result of regulation at Winchester Dam 5.2 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2360	3780	6360	4760	13600	2690	2880	2360	1620	830	1160	680
2	2030	2660	5070	11400	22800	2620	2940	2520	1540	875	1050	706
3	1840	2150	4270	7710	13500	2630	3040	2400	1480	937	918	703
4	1700	1920	3700	6690	9020	2910	2970	2330	1450	874	924	737
5	1610	1710	3330	5180	6680	3190	2780	2240	1490	847	1050	759
6	1570	1630	3040	4230	5620	3550	2680	2210	1510	815	914	742
7	1520	1900	3040	3590	5090	3490	2580	2320	1410	812	871	688
8	1470	3020	2720	3230	4650	3050	2530	2360	1250	808	865	689
9	1430	3080	2430	3000	4310	2930	2680	2320	1190	805	846	692
10	1410	4960	2380	2790	3990	2830	2590	2300	1180	875	835	691
11	1410	3580	2180	2690	4040	2820	2990	2130	1230	1040	825	692
12	1390	2760	2140	2760	4040	3250	3130	2010	1250	861	772	646
13	1370	2350	2120	3580	5370	5390	2950	2000	1240	754	786	775
14	1340	2210	2480	3510	8700	6310	2690	1830	1180	772	839	752
15	1320	2330	2490	3300	7200	6860	2560	1800	1130	784	808	803
16	1300	2040	2290	2980	6490	5580	2560	1830	1200	786	797	1010
17	1280	1920	2130	2760	6190	4890	2540	1790	1210	798	787	970
18	1360	2230	2060	2380	6150	6260	2900	1670	1200	1060	786	963
19	1400	3490	2120	2250	5600	6790	2880	1640	1110	3150	772	953
20	1370	3820	2110	2190	4960	5690	2650	1640	1030	2030	738	945
21	1230	8990	2000	2100	4590	5040	2420	1510	1120	1550	716	987
22	1210	16000	1980	2030	4270	4330	2350	1420	1160	2640	714	979
23	1290	12200	2300	2220	4300	4730	2410	1360	1180	3360	761	944
24	1310	8250	2790	4170	3650	5870	2430	1520	1120	2030	767	881
25	1310	6740	2760	14200	3610	5120	2380	1660	1080	1690	755	731
26	1260	5690	3010	21100	3220	4550	2300	1600	1010	1430	844	854
27	1600	16800	3270	14500	3010	4050	2300	1510	921	1280	720	992
28	2140	28300	2930	13900	2820	3600	2420	1480	903	1320	580	969
29	1650	15500	2770	9890	---	3340	2550	147[illegible]	889	1160	859	971
30	2620	8880	2820	7360	---	3080	2440	1460	778	1330	749	921
31	4050	---	2700	6550	---	2930	---	1470	---	1040	685	---
TOTAL	50150	180890	87790	179000	177670	130370	79520	58160	36061	39343	25495	24825
MEAN	1618	6030	2832	5774	6345	4205	2651	1876	1202	1269	822	827
MAX	4050	28300	6360	21100	22800	6860	3130	2520	1620	3360	1160	1010
MIN	1210	1630	1980	2030	2820	2620	2300	1360	778	754	580	646
AC-FT	99470	358800	174100	355000	352400	258600	157700	115400	71530	78040	50570	49240
CFSM	1.20	4.49	2.11	4.30	4.72	3.13	1.97	1.40	.89	.94	.61	.62
IN.	1.39	5.01	2.43	4.95	4.92	3.61	2.20	1.61	1.00	1.09	.71	.69

CAL YR 1986 TOTAL 1454049 MEAN 3984 MAX 59200 MIN 859 AC-FT 2884000 CFSM 2.96 IN. 40.25
WTR YR 1987 TOTAL 1069274 MEAN 2930 MAX 28300 MIN 580 AC-FT 2121000 CFSM 2.18 IN. 29.60

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-69, 1971 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: January 1971 to current year.

INSTRUMENTATION.--Temperature recorder since 1971.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.5°C Aug. 10, 1972, Aug. 8, 9, 1978, Aug. 9, 10, 1981; minimum, 0.0°C at times in 1971-72, 1974, 1977, 1980, 1984.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.0°C June 30; minimum, 1.5°C Jan. 17, 18.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.5	10.5	11.0	10.0	9.5	10.0	6.5	6.0	6.0	6.5	5.5	6.0
2	11.5	10.5	11.0	10.0	9.5	10.0	6.0	6.0	6.0	7.0	6.5	6.5
3	12.0	10.5	11.0	9.5	8.5	9.0	6.0	6.0	6.0	7.5	7.0	7.0
4	12.0	11.0	11.5	8.5	8.5	8.5	6.0	5.5	5.5	7.0	7.0	7.0
5	12.5	11.5	11.5	9.5	8.5	9.0	6.5	5.5	6.0	7.0	6.0	6.5
6	13.0	11.5	12.0	9.0	8.5	8.5	7.0	6.5	6.5	6.5	6.0	6.0
7	13.5	12.0	12.5	9.0	8.5	8.5	7.0	7.0	7.0	6.0	4.5	5.0
8	13.5	12.0	12.5	8.5	8.0	8.0	7.0	5.5	6.5	4.5	3.0	3.5
9	12.5	11.5	12.0	8.5	8.0	8.0	5.5	5.0	5.5	3.5	3.0	3.0
10	11.5	11.0	11.0	8.5	8.0	8.5	5.0	4.0	4.5	3.5	3.0	3.0
11	12.5	11.0	11.5	8.5	8.0	8.0	4.0	3.5	4.0	4.0	3.0	3.5
12	12.5	11.0	11.5	8.0	7.5	8.0	4.5	3.5	4.0	4.5	4.0	4.0
13	11.5	10.5	11.0	8.0	7.5	8.0	5.5	4.5	5.0	5.0	4.5	4.5
14	11.5	10.0	10.5	8.0	7.5	8.0	6.0	5.5	5.5	5.5	5.0	5.0
15	11.5	10.0	10.5	8.5	7.5	8.0	6.0	5.5	5.5	5.0	3.5	4.0
16	11.0	10.5	10.5	8.5	8.5	8.5	5.5	5.5	5.5	4.0	2.5	3.0
17	10.5	10.0	10.5	8.5	8.5	8.5	5.5	4.5	5.0	2.5	1.5	1.5
18	11.0	10.0	10.5	8.5	8.0	8.0	4.5	4.5	4.5	2.0	1.5	2.0
19	11.5	10.5	11.0	8.0	7.5	8.0	5.0	4.5	4.5	2.5	2.0	2.0
20	11.5	10.5	11.0	8.5	8.0	8.5	5.0	5.0	5.0	3.5	2.5	3.0
21	11.5	10.5	11.0	9.0	8.5	9.0	5.5	5.0	5.5	3.0	2.5	2.5
22	11.5	10.5	11.0	9.0	8.5	9.0	6.5	5.5	6.0	3.0	2.5	2.5
23	10.5	10.5	10.5	8.5	8.5	8.5	6.5	6.0	6.5	4.5	3.0	3.5
24	10.5	10.0	10.5	9.0	8.0	8.5	6.5	6.5	6.5	5.5	4.5	5.0
25	11.5	10.5	10.5	8.0	7.0	7.5	6.5	6.0	6.0	7.0	5.5	6.0
26	12.0	11.0	11.5	7.5	7.0	7.0	6.5	6.0	6.0	7.5	7.0	7.0
27	12.0	11.0	11.5	9.0	7.5	8.0	6.5	6.0	6.0	7.5	7.0	7.5
28	11.5	10.5	11.0	9.0	8.5	9.0	6.0	4.5	5.0	7.0	7.0	7.0
29	11.0	10.5	10.5	8.5	7.5	8.0	6.0	5.0	5.5	7.0	6.5	7.0
30	11.0	10.0	10.5	7.5	6.5	7.0	6.0	5.5	5.5	7.5	7.0	7.0
31	10.5	10.0	10.5	---	---	---	5.5	5.5	5.5	7.0	6.5	7.0
MONTH	13.5	10.0	11.0	10.0	6.5	8.5	7.0	3.5	5.5	7.5	1.5	5.0

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	7.0	7.0	6.5	6.0	6.5	11.0	9.5	10.0	14.0	13.0	13.5
2	7.5	6.5	7.0	7.5	6.5	7.0	11.5	10.0	11.0	13.0	11.5	12.0
3	7.5	7.5	7.5	8.0	7.5	8.0	11.5	10.5	11.0	13.0	11.0	12.0
4	7.5	7.0	7.0	9.5	8.0	8.5	11.5	10.5	11.0	13.5	13.0	13.0
5	7.0	6.5	7.0	9.5	9.0	9.0	11.5	10.0	10.5	15.0	13.0	13.5
6	6.5	6.0	6.5	9.0	8.0	8.5	10.0	9.0	9.5	17.5	15.0	16.0
7	7.0	6.0	6.5	8.5	7.0	7.5	11.0	9.5	10.0	18.5	17.5	18.0
8	7.0	6.5	6.5	8.0	7.0	7.5	12.5	11.0	11.5	19.0	17.5	18.5
9	7.0	6.5	6.5	8.0	7.0	7.5	12.0	11.0	11.5	19.0	18.0	18.5
10	7.5	6.5	7.0	8.0	7.5	8.0	12.0	10.0	11.0	19.5	17.0	18.0
11	8.0	7.0	7.5	8.5	7.5	8.0	10.0	9.0	9.5	18.0	17.0	17.5
12	8.0	7.0	7.5	8.5	7.5	8.0	10.5	8.5	9.5	17.5	16.5	17.5
13	7.0	6.5	7.0	8.0	7.0	7.5	11.0	9.0	10.0	17.5	16.0	17.0
14	7.0	7.0	7.0	8.0	7.5	8.0	11.5	10.0	11.0	18.0	17.0	17.5
15	7.0	7.0	7.0	7.5	7.0	7.0	12.5	11.5	12.0	17.5	15.5	17.0
16	7.0	6.5	7.0	8.0	7.0	7.5	13.0	12.0	12.5	16.5	14.5	15.5
17	7.5	6.5	7.0	8.5	7.5	8.0	12.5	11.5	12.0	16.0	15.0	15.5
18	7.5	7.0	7.5	7.5	7.0	7.5	11.5	10.5	10.5	16.5	14.5	15.0
19	7.0	6.0	6.5	7.0	6.0	6.5	10.5	8.5	9.5	15.5	14.5	15.5
20	6.5	5.5	6.0	7.0	6.0	6.5	11.0	9.0	10.0	16.5	14.5	15.5
21	6.5	6.0	6.5	7.0	6.5	7.0	12.0	10.5	11.0	17.0	14.5	15.5
22	6.5	6.0	6.0	7.5	6.5	7.0	13.5	12.0	12.5	17.5	15.0	16.0
23	6.0	5.5	6.0	8.5	7.0	7.5	14.5	13.0	13.5	16.0	15.0	15.5
24	6.0	4.5	5.5	8.0	7.0	7.5	14.0	13.0	13.5	15.0	14.0	14.5
25	5.5	4.0	5.0	8.0	7.0	7.5	14.0	13.0	13.5	14.0	13.0	13.5
26	5.0	4.0	4.5	9.0	7.0	8.0	14.5	13.0	13.5	14.0	12.5	13.0
27	6.0	4.5	5.0	8.5	7.5	8.0	15.5	14.0	15.0	13.5	13.0	13.0
28	6.5	6.0	6.0	8.5	6.5	7.5	15.5	15.5	15.5	14.5	12.5	13.5
29	---	---	---	9.0	7.5	8.0	15.5	14.0	14.5	16.5	14.5	15.0
30	---	---	---	9.5	7.5	8.5	15.0	14.0	14.5	15.5	15.0	15.0
31	---	---	---	10.5	8.5	9.5	---	---	---	15.0	14.0	14.5
MONTH	8.0	4.0	6.5	10.5	6.0	7.5	15.5	8.5	11.5	19.0	11.0	15.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	13.5	15.0	25.0	23.0	24.0	20.5	18.5	19.5	22.0	20.5	21.0
2	17.5	15.0	16.0	24.0	22.5	23.0	21.0	19.0	19.5	21.5	20.0	20.5
3	19.0	16.5	17.5	22.5	21.5	22.0	22.5	19.5	20.5	20.5	19.0	19.5
4	20.5	18.5	19.5	21.0	20.0	20.5	23.0	21.0	21.5	20.0	18.5	19.0
5	19.5	18.5	19.0	21.0	19.5	20.0	23.5	21.0	22.0	20.0	18.0	18.5
6	19.5	17.5	18.5	21.5	19.5	20.5	23.0	21.0	21.5	20.0	18.0	19.0
7	20.5	18.0	19.0	22.0	20.0	20.5	23.0	20.5	21.5	20.0	18.0	19.0
8	21.5	19.5	20.0	21.0	20.0	20.5	24.0	21.0	22.0	19.5	18.0	18.5
9	21.5	19.5	20.5	20.5	19.0	20.0	24.0	22.0	22.5	19.0	18.0	18.5
10	21.0	19.5	20.0	21.0	19.5	20.0	22.5	21.0	22.0	18.0	17.5	18.0
11	21.0	19.0	20.0	23.0	20.0	21.0	22.0	20.5	21.0	17.5	16.5	17.0
12	21.0	19.0	20.0	24.0	21.0	22.0	22.0	19.5	20.5	16.5	15.5	16.0
13	22.5	20.0	21.0	25.0	22.0	23.0	21.0	20.0	20.5	16.5	15.5	16.0
14	22.0	20.5	21.5	25.5	23.0	24.0	20.5	19.5	20.0	16.0	15.5	16.0
15	20.5	18.0	19.5	24.5	22.5	23.5	20.5	19.0	19.5	16.0	15.0	15.5
16	18.0	17.0	17.5	22.0	20.5	21.5	20.0	18.5	19.0	16.0	14.5	15.0
17	18.5	16.5	17.5	21.0	18.5	19.5	20.5	18.5	19.0	16.0	14.0	15.0
18	19.5	17.0	18.0	18.5	16.0	17.5	21.0	18.5	19.5	16.5	14.5	15.0
19	20.5	18.0	19.0	16.5	15.0	15.5	21.0	19.0	20.0	16.5	14.5	15.0
20	19.5	18.5	19.0	18.0	16.0	17.0	21.5	19.0	20.0	16.5	15.0	15.5
21	19.0	18.0	18.5	18.5	17.5	18.0	21.0	19.0	19.5	16.5	14.5	15.5
22	19.5	17.0	18.0	17.5	16.0	17.0	20.0	19.5	19.5	17.0	15.0	16.0
23	20.5	18.0	19.0	16.0	14.5	15.5	20.5	18.5	19.0	17.0	16.0	16.0
24	21.5	19.0	20.0	16.5	15.5	16.0	21.0	18.5	19.5	---	---	---
25	22.5	20.0	21.0	18.0	16.0	16.5	21.5	19.5	20.0	---	---	---
26	24.0	21.5	22.5	19.0	17.0	18.0	21.5	19.5	20.0	---	---	---
27	25.0	22.5	23.5	20.0	18.0	19.0	21.5	19.0	20.0	---	---	---
28	25.0	23.0	24.0	20.0	18.5	19.0	22.0	20.0	20.5	---	---	---
29	25.5	23.5	24.5	21.0	19.5	20.0	21.5	19.5	20.5	---	---	---
30	26.0	23.5	24.5	19.5	19.0	19.5	22.5	20.0	21.0	---	---	---
31	---	---	---	20.5	18.5	19.0	23.0	21.0	21.5	---	---	---
MONTH	26.0	13.5	20.0	25.5	14.5	20.0	24.0	18.5	20.5	---	---	---

14319900 CALAPOOYA CREEK AT NONPAREIL, OR

LOCATION.--Lat 43°25′04″, long 123°09′13″, in SW 1/4 SE 1/4 sec.3, T.25 S., R.4 W., Douglas County, Hydrologic Unit 17100303, on left bank 0.3 mi upstream from county road bridge, 0.9 mi northeast of Nonpareil, and at mile 26.7.

DRAINAGE AREA.--88.6 mi^2.

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 699.22 ft above National Geodetic Vertical Datum of 1929 (Douglas County Survey bench mark).

REMARKS.--No estimated daily discharges. Records good except those for periods of backwater Oct. 1 to Nov. 22, June 28 to July 18, and July 26 to Sept. 30, which are fair. Only minor diversions by pumping for irrigation upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 205 ft^3/s, 31.42 in/yr, 148,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,640 ft^3/s Dec. 6, 1981, gage height, 11.16 ft; minimum discharge, 3.7 ft^3/s Sept. 23-25, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	0800	*2,530	6.93	Nov. 28	0800	(a)	[illegible]

Minimum discharge, 3.7 ft^3/s Sept. 23-25.

(a) From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	175	392	571	998	156	145	79	59	[illegible]	31	6.2
2	94	131	295	701	1580	149	135	88	48	[illegible]	33	6.1
3	81	111	238	588	818	145	133	80	42	[illegible]	28	6.8
4	71	100	199	501	547	145	128	73	38	[illegible]	[illegible]	7.8
5	62	93	175	380	401	144	119	70	33	[illegible]	[illegible]	8.1
6	55	90	152	298	316	144	114	66	33	18	[illegible]	7.8
7	50	169	135	242	262	135	111	61	[illegible]	16	[illegible]	7.6
8	45	190	122	190	226	127	124	57	31	14	[illegible]	7.8
9	40	206	113	171	200	127	116	52	28	15	18	8.2
10	38	258	104	156	179	120	118	49	27	16	17	8.0
11	35	207	99	142	185	119	152	47	25	16	18	8.7
12	31	170	104	185	167	169	149	45	25	13	18	11
13	28	148	109	283	279	212	141	47	24	11	15	11
14	25	139	121	290	459	342	128	45	23	12	17	10
15	23	132	109	261	371	370	117	44	23	15	18	11
16	21	123	101	225	342	286	108	45	23	17	15	10
17	20	128	94	195	316	286	106	42	24	24	13	8.4
18	26	139	94	171	336	403	118	42	24	115	12	7.6
19	26	192	108	152	306	443	115	39	22	189	11	6.2
20	23	323	106	139	269	370	107	38	21	98	9.3	5.9
21	21	501	100	129	269	307	102	38	23	93	9.0	5.1
22	20	1030	105	123	262	256	96	36	25	115	9.0	4.6
23	20	574	156	136	279	331	91	36	24	100	9.8	3.8
24	20	415	172	274	263	365	85	40	21	79	9.3	3.7
25	20	360	164	910	238	314	81	76	19	69	8.4	4.7
26	22	362	184	975	206	267	78	65	18	62	7.8	6.3
27	60	1280	171	766	184	232	73	52	16	55	7.4	6.8
28	57	2060	153	749	168	206	70	46	15	49	7.3	7.2
29	67	973	203	542	---	185	67	42	15	43	7.4	6.5
30	140	568	232	415	---	167	67	40	14	40	7.0	5.7
31	190	---	206	389	---	154	---	65	---	38	6.4	---
TOTAL	1540	11347	4816	11249	10426	7176	3294	1645	795	1412	473.1	218.4
MEAN	49.7	378	155	363	372	231	110	53.1	26.5	45.5	15.3	7.28
MAX	190	2060	392	975	1580	443	152	88	59	189	33	11
MIN	20	90	94	123	167	119	67	36	14	11	6.4	3.7
AC-FT	3050	22510	9550	22310	20680	14230	6530	3260	1580	2800	938	433

CAL YR 1986 TOTAL 76335.3 MEAN 209 MAX 3720 MIN 6.0 AC-FT 151400
WTR YR 1987 TOTAL 54391.5 MEAN 149 MAX 2060 MIN 3.7 AC-FT 107900

14320700 CALAPOOYA CREEK NEAR OAKLAND, OR

LOCATION.--Lat 43°24'10", long 123°21'45", in NW 1/4 sec.13, T.25 S., R.6 W., Douglas County, Hydrologic Unit 17100303, near center of span on downstream side of highway bridge, 0.9 mi downstream from Williams Creek, 2.5 mi northwest of Sutherlin, 3.5 mi southwest of Oakland, and at mile 10.1

DRAINAGE AREA.--210 mi^2.

PERIOD OF RECORD.--October 1955 to September 1973, October 1986 to September 1987. Records for the years 1974-86 are available at the Douglas County Water Resources Dept. in Roseburg.

GAGE.--Water-stage recorder. Datum of gage is 371.26 ft above National Geodetic Vertical Datum of 1929. Prior to June 22, 1968, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 22 to Dec. 18, July 24 to Aug. 11. Records good except for estimated daily discharges, which are poor. Diversion upstream from station for municipal supply of cities of Sutherlin and Oakland. Small diversions by pumping for irrigation upstream from station.

AVERAGE DISCHARGE.--19 years (water years 1956-73, 1987), 486 ft^3/s, 31.43 in/yr, 352,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft^3/s Nov. 23, 1961, gage height, 21.55 ft; no flow Sept. 9-11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	unknown	unknown	unknown	Feb. 2	0300	7,730	15.16

Minimum discharge, 0.38 ft^3/s Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	280	680	1670	3200	332	255	90	57	5.9	12	1.7
2	81	210	530	2110	5160	310	231	102	59	5.7	10	1.4
3	65	170	430	1700	2140	291	253	94	54	5.9	9.0	.98
4	54	150	360	1360	1420	277	223	86	49	6.1	8.0	.55
5	49	140	320	1020	1010	265	201	83	45	6.5	7.0	1.1
6	45	135	280	820	809	263	192	78	42	7.9	6.0	2.0
7	40	250	250	642	658	239	179	73	39	9.8	5.0	2.5
8	36	290	230	525	553	225	189	68	35	9.6	4.5	3.7
9	33	330	220	442	478	237	178	64	31	8.3	4.2	4.5
10	32	390	210	380	420	212	171	60	28	8.3	3.8	2.6
11	30	320	200	335	414	212	246	56	24	8.3	3.4	2.8
12	28	260	200	467	368	288	235	53	22	8.3	4.2	3.6
13	27	230	220	981	795	404	210	51	20	8.0	3.8	5.0
14	25	220	240	913	1440	644	186	50	18	6.1	5.1	4.8
15	25	210	220	776	1140	777	167	48	18	5.8	7.2	4.2
16	25	200	200	624	1010	600	151	47	18	5.6	7.0	5.2
17	28	210	190	517	924	588	144	47	17	5.0	4.5	4.1
18	47	230	188	445	903	827	166	46	17	20	4.5	3.4
19	59	320	219	386	798	981	164	46	16	274	2.9	3.4
20	48	600	214	340	682	840	144	44	15	116	3.8	2.9
21	40	1000	199	305	675	688	134	43	14	89	2.6	3.1
22	35	2600	225	281	642	554	124	41	15	97	3.5	3.3
23	35	1000	425	310	702	793	117	40	15	105	3.8	3.5
24	37	720	513	758	632	785	109	39	14	77	5.1	3.6
25	63	650	489	2660	547	668	102	66	14	53	2.8	3.4
26	70	900	618	2830	474	559	97	90	13	44	2.2	3.6
27	160	3000	529	2020	416	470	90	72	11	37	2.1	4.4
28	135	5600	445	1930	367	407	85	65	9.4	30	2.3	4.5
29	140	1900	539	1380	---	356	83	59	7.8	25	1.8	4.4
30	260	1000	629	1050	---	314	83	54	6.7	20	2.0	3.5
31	310	---	544	1130	---	280	---	52	---	15	1.8	---
TOTAL	2161	23515	10756	31107	28757	14686	4909	1907	743.9	1123.1	145.9	97.73
MEAN	69.7	784	347	1003	1027	474	164	61.5	24.8	36.2	4.71	3.26
MAX	310	5600	680	2830	5160	981	255	102	59	274	12	5.2
MIN	25	135	188	281	367	212	83	39	6.7	5.0	1.8	.55
AC-FT	4290	46640	21330	61700	57040	29130	9740	3780	1480	2230	289	194
CFSM	.33	3.73	1.65	4.78	4.89	2.26	.78	.29	.12	.17	.02	.02
IN.	.38	4.17	1.91	5.51	5.09	2.60	.87	.34	.13	.20	.03	.02

WTR YR 1987 TOTAL 119908.63 MEAN 329 MAX 5600 MIN .55 AC-FT 237800 CFSM 1.56 IN. 21.24

14321000 UMPQUA RIVER NEAR ELKTON, OR

LOCATION.--Lat 43°35′10", long 123°33′15", in NW1/4 sec.8, T.23 S., R.7 W., Douglas County, Hydrologic Unit 17100303, on left bank 3.5 mi south of Elkton, 8.3 mi upstream from Elk Creek, and at mile 56.9.

DRAINAGE AREA.--3,683 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to current year.

REVISED RECORDS.--WSP 1184: 1927(M), 1938(M), 1943(M), 1946(M). WSP 1448: 1911-13, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 90.42 ft above National Geodetic Vertical Datum of 1929. Prior to June 29, 1972, at site 2,400 ft downstream at same datum. See WSP 1931 or 2135 for history of changes prior to June 29, 1972.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Regulation by powerplants on North Umpqua River ordinarily does not affect discharge at this station. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--82 years, 7,512 ft^3/s, 27.70 in/yr, 5,442,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 265,000 ft^3/s Dec. 23, 1964, gage height, 51.95 ft, from floodmarks; minimum discharge observed, 640 ft^3/s July 18, 1926.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least December 1861, that of Dec. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 52,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	1900	60,400	21.03	Feb. 2	1230	*71,600	*23.25
Jan. 26	1430	54,500	19.78				

Minimum discharge, 740 ft^3/s Aug. 29, result of regulation at Winchester Dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3660	6090	14900	6740	19800	5900	5390	3560	1810	1060	1310	934
2	3300	4980	11300	25200	65000	5600	5280	3500	1970	1030	1290	910
3	2820	3740	9100	22000	44800	5460	5370	3650	1920	1040	1270	914
4	2490	3080	7690	20600	26400	6040	5440	3430	1830	1060	1180	918
5	2230	2680	6740	15500	18200	6950	5190	3300	1730	1090	1130	919
6	2070	2370	6010	11600	14200	6810	4850	3140	1740	1080	1180	949
7	1970	2250	5590	9240	11800	7280	4600	3130	1750	1060	1140	958
8	1890	2830	5190	7740	10400	6610	4380	3200	1670	1050	1080	931
9	1840	4550	4590	6850	9250	6110	4370	3160	1510	1040	1060	918
10	1760	5680	4270	6060	8420	5910	4370	3100	1470	1040	1060	923
11	1710	7050	3980	5530	7710	5680	4380	2970	1440	1040	1050	929
12	1700	5200	3740	5190	7750	5740	4990	2780	1440	1160	1040	926
13	1700	4140	3680	6500	7920	10800	5020	2640	1460	1120	1020	919
14	1670	3600	3780	7340	15300	13300	4580	2520	1440	1030	990	960
15	1610	3370	4230	7110	17400	13900	4260	2370	1400	989	1040	1000
16	1580	3350	4100	6550	16000	12200	4070	2260	1350	988	1040	965
17	1570	2920	3790	5960	14900	10300	4010	2260	1390	988	1040	1110
18	1560	2800	3570	5350	13800	10600	4060	2220	1420	1030	1030	1130
19	1620	3150	3480	4800	12800	14000	4530	2070	1430	1250	1030	1110
20	1680	5000	3560	4510	11200	13600	4340	2030	1380	3610	1020	1110
21	1670	8030	3490	4270	10000	11900	4010	2000	1310	2830	987	1110
22	1540	21500	3360	4010	9500	10300	3680	1860	1330	2130	949	1110
23	1470	26800	3730	3970	9310	9400	3610	1760	1370	3550	940	1120
24	1530	16800	5330	4820	9240	10900	3670	1700	1410	3820	955	1100
25	1540	13100	6090	18200	8590	10900	3670	1860	1380	2750	983	1080
26	1580	10900	6190	48100	7700	9560	3550	2060	1310	2160	978	972
27	1570	17500	6530	37200	6990	8420	3450	2050	1240	1780	977	979
28	1980	57800	6210	32100	6360	7470	3400	1920	1170	1600	1080	1100
29	2660	43800	5620	26000	---	6710	3570	1860	1120	1550	799	1100
30	2450	22500	5840	18800	---	6200	3680	1830	1100	1410	949	1100
31	4350	---	5820	15100	---	5730	---	1830	---	1470	1030	---
TOTAL	62770	317560	171500	402940	420740	270280	129780	78020	44290	48825	32627	30205
MEAN	2025	10590	5532	13000	15030	8719	4326	2517	1476	1575	1052	1007
MAX	4350	57800	14900	48100	65000	14000	5440	3650	1970	3820	1310	1130
MIN	1470	2250	3360	3970	6360	5460	3400	1700	1100	988	799	910
AC-FT	124500	629900	340200	799200	834500	536100	257400	154800	87850	96840	64720	59910
CFSM	.55	2.87	1.50	3.53	4.08	2.37	1.17	.68	.40	.43	.29	.27
IN.	.63	3.21	1.73	4.07	4.25	2.73	1.31	.79	.45	.49	.33	.31

CAL YR 1986 TOTAL 2709876 MEAN 7424 MAX 135000 MIN 928 AC-FT 5375000 CFSM 2.02 IN. 27.37
WTR YR 1987 TOTAL 2009527 MEAN 5506 MAX 65000 MIN 799 AC-FT 3986000 CFSM 1.49 IN. 20.30

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1971 to current year.

INSTRUMENTATION.--Temperature recorder since April 1971.

REMARKS.--Chemical analyses available October 1965 to September 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 30.0°C July 14, 1971; minimum, 0.0°C Jan. 7, 8, 11, 12, and probably Jan. 9, 10, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.5°C June 28, July 14; minimum, 2.5°C Jan. 18-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.5	12.5	13.0	12.0	11.5	12.0	7.5	7.0	7.5	6.5	6.5	6.5
2	13.5	12.5	13.0	12.0	11.5	11.5	7.0	7.0	7.0	7.0	6.5	7.0
3	14.0	13.0	13.5	11.5	11.5	11.5	7.0	6.5	6.5	7.5	7.0	7.0
4	14.5	13.5	14.0	11.5	11.0	11.0	6.5	6.5	6.5	7.5	7.5	7.5
5	15.0	14.0	14.5	11.0	10.5	10.5	6.5	6.5	6.5	7.5	7.5	7.5
6	15.0	14.5	14.5	10.5	10.0	10.5	6.5	6.5	6.5	7.5	7.0	7.0
7	16.0	14.5	15.0	10.5	10.0	10.0	6.5	6.5	6.5	7.0	6.0	6.5
8	15.5	14.5	15.0	10.0	10.0	10.0	6.5	6.5	6.5	6.0	5.5	5.5
9	15.5	15.0	15.0	10.0	9.5	10.0	6.5	6.5	6.5	5.5	4.5	5.0
10	15.0	14.5	14.5	9.5	9.0	9.5	6.5	5.5	6.0	5.0	4.5	4.5
11	15.0	14.0	14.5	9.5	8.5	9.0	5.5	5.5	5.5	4.5	4.0	4.5
12	14.5	13.5	14.0	9.0	9.0	9.0	5.5	5.5	5.5	4.5	4.5	4.5
13	14.0	13.5	13.5	9.0	8.5	9.0	5.5	5.5	5.5	5.5	4.5	5.0
14	14.0	13.5	13.5	9.5	9.0	9.0	6.0	5.5	5.5	5.5	5.0	5.0
15	14.0	13.5	13.5	9.5	9.0	9.5	6.0	6.0	6.0	5.5	5.0	5.0
16	14.0	13.5	[illegible]	9.5	9.0	9.5	6.0	6.0	6.0	5.0	3.5	4.0
17	13.5	13.0	[illegible]	9.5	9.5	9.5	6.0	5.5	6.0	3.5	3.0	3.5
18	13.5	13.0	[illegible]	9.5	9.5	9.5	5.5	5.5	5.5	3.0	2.5	2.5
19	13.5	13.0	[illegible]	9.5	9.5	9.5	5.5	5.5	5.5	2.5	2.5	2.5
20	13.0	12.5	[illegible]	9.5	9.0	9.5	5.5	5.5	5.5	3.0	2.5	2.5
21	13.0	12.5	[illegible]	9.0	8.5	9.0	6.0	5.5	5.5	3.0	2.5	2.5
22	13.5	13.0	[illegible]	9.5	9.0	9.0	6.5	6.0	6.0	3.0	3.0	3.0
23	13.5	13.0	13.0	9.0	9.0	9.0	6.5	6.5	6.5	4.0	3.0	3.5
24	13.5	13.0	13.0	9.0	9.0	9.0	7.5	6.5	6.5	4.0	3.5	4.0
25	13.5	13.0	[illegible]	9.0	8.5	9.0	7.0	7.0	7.0	6.0	4.0	5.0
26	13.5	13.5	13.5	8.5	8.0	8.5	7.5	7.0	7.0	[illegible]	6.5	[illegible]
27	13.5	13.0	13.0	8.5	8.0	8.5	7.0	6.5	7.0	8.0	7.5	8.0
28	13.5	13.0	13.5	9.5	8.5	9.0	7.0	6.5	6.5	8.0	7.5	8.0
29	13.0	12.5	13.0	9.5	8.5	9.0	6.5	6.5	6.5	[illegible]	7.5	7.5
30	12.5	12.0	12.5	8.5	8.0	8.5	6.5	6.0	6.0	[illegible]	7.5	7.5
31	12.5	12.5	12.5	---	---	---	6.5	6.0	6.0	[illegible]	7.5	7.5
MONTH	16.0	12.0	[illegible]	12.0	8.0	9.5	7.5	5.5	6.5	8.0	2.5	5.5

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	7.5	7.5	7.5	7.0	7.0	12.5	11.0	11.5	17.0	16.0	16.0
2	7.5	7.0	7.5	8.5	7.5	8.0	12.5	11.5	12.0	16.0	15.0	15.5
3	8.0	7.5	7.5	9.0	8.5	8.5	13.0	12.0	12.5	17.0	14.5	15.5
4	8.0	8.0	8.0	9.5	9.0	9.0	13.5	12.5	13.0	16.5	16.0	16.0
5	8.0	7.5	8.0	10.0	9.5	9.5	13.0	12.5	13.0	17.5	15.5	16.5
6	8.0	7.5	7.5	10.5	10.0	10.0	13.0	12.0	12.5	19.5	17.0	18.0
7	7.5	7.5	7.5	10.0	9.5	10.0	13.0	12.5	12.5	20.5	18.5	19.5
8	7.5	7.5	7.5	10.0	9.5	9.5	13.5	12.5	13.0	22.0	19.5	21.0
9	7.5	7.5	7.5	9.5	9.0	9.5	14.0	12.5	13.0	23.0	21.0	22.0
10	8.0	7.5	8.0	9.0	9.0	9.0	13.5	13.0	13.5	22.5	21.0	22.0
11	8.5	8.0	8.0	9.5	9.0	9.0	13.0	12.0	12.5	22.0	21.0	21.5
12	8.5	8.0	8.0	9.5	9.5	9.5	13.0	12.0	12.5	22.0	21.0	21.5
13	8.5	8.0	8.5	9.5	9.5	9.5	13.0	11.5	12.5	22.0	20.0	21.0
14	8.0	7.5	8.0	9.5	9.0	9.0	14.0	12.0	13.0	21.5	21.0	21.0
15	7.5	7.5	7.5	9.0	8.5	9.0	14.5	13.0	13.5	21.0	19.0	20.0
16	8.0	7.5	7.5	9.0	8.5	9.0	15.5	13.5	14.5	19.5	18.0	18.5
17	8.0	7.5	7.5	9.0	8.5	9.0	15.0	14.5	15.0	18.5	18.0	18.5
18	8.0	7.5	8.0	9.0	8.5	9.0	14.0	13.5	14.0	18.5	17.5	18.0
19	8.0	7.5	8.0	8.5	8.0	8.5	13.5	12.5	13.0	18.0	16.5	17.5
20	7.5	7.0	7.5	8.0	7.5	7.5	14.0	12.0	13.0	18.5	17.0	17.5
21	7.5	7.0	7.0	8.5	7.5	8.0	14.0	12.5	13.0	19.5	17.5	18.5
22	7.5	7.0	7.0	8.5	7.5	8.0	15.0	13.0	14.0	19.5	17.5	18.5
23	7.0	7.0	7.0	9.0	8.0	8.5	15.5	14.0	14.5	19.0	18.0	18.0
24	7.0	6.5	6.5	9.5	8.5	9.0	16.0	14.5	15.0	18.0	17.0	17.5
25	6.5	6.0	6.0	9.5	8.5	9.0	16.5	14.5	15.5	17.0	16.0	16.5
26	6.0	5.5	6.0	9.5	8.5	9.0	17.5	15.5	16.5	16.5	15.5	16.0
27	6.0	6.0	6.0	9.5	8.5	9.5	18.5	16.0	17.0	16.0	15.5	15.5
28	7.0	6.0	6.5	10.0	9.5	9.5	18.0	17.0	17.5	16.0	15.0	15.5
29	---	---	---	10.5	9.5	10.0	18.0	16.5	17.5	17.0	15.5	16.5
30	---	---	---	11.0	9.5	10.5	17.5	17.0	17.5	17.0	16.5	16.5
31	---	---	---	11.5	10.0	11.0	---	---	---	16.5	16.0	16.5
MONTH	8.5	5.5	7.5	11.5	7.0	9.0	18.5	11.0	14.0	23.0	14.5	18.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	15.5	17.0	26.0	24.5	25.0	22.0	20.5	21.5	24.5	23.5	24.0
2	20.0	17.5	19.0	25.0	24.0	24.5	23.0	21.0	22.0	24.0	23.0	23.5
3	21.0	18.5	19.5	24.5	22.5	23.5	24.0	21.5	22.5	23.0	22.0	22.5
4	20.5	19.5	20.0	22.5	22.0	22.5	24.5	22.5	23.5	22.5	21.5	22.0
5	19.5	19.0	19.5	22.5	22.0	22.5	24.5	23.0	24.0	22.5	21.5	22.0
6	20.5	18.5	19.5	22.5	21.5	22.0	24.5	23.0	24.0	22.5	21.5	22.0
7	22.0	19.5	21.0	22.5	21.5	22.0	25.0	23.0	24.0	22.0	21.5	22.0
8	22.5	21.0	21.5	22.5	21.5	22.0	25.5	24.0	25.0	22.0	21.5	22.0
9	23.0	21.0	22.0	21.5	21.0	21.5	25.5	24.0	25.0	22.0	21.5	21.5
10	23.0	21.0	22.0	22.0	21.0	21.5	25.0	23.5	24.0	21.5	20.0	21.0
11	23.0	21.0	22.0	23.5	21.5	22.5	24.0	23.0	23.5	20.0	19.5	19.5
12	24.0	21.5	22.5	25.0	23.0	24.0	24.0	22.5	23.5	19.5	18.5	19.0
13	24.5	22.0	23.0	26.0	24.0	25.0	23.5	22.5	23.0	19.0	18.0	18.5
14	24.5	23.0	23.5	26.0	25.0	25.5	22.5	22.0	22.5	18.5	18.0	18.0
15	23.0	21.0	22.0	26.0	25.0	25.5	22.5	21.5	22.0	18.0	17.5	17.5
16	21.5	20.0	20.5	25.0	23.5	24.0	22.0	21.0	22.0	18.0	17.5	18.0
17	21.0	19.5	20.0	23.5	21.5	22.0	22.0	21.0	22.0	18.0	17.0	17.5
18	22.0	20.0	21.0	21.5	20.0	20.5	22.5	21.0	22.0	18.0	17.0	17.5
19	22.5	20.5	21.5	21.5	19.5	20.5	23.0	21.5	22.5	18.5	17.0	18.0
20	22.5	21.0	21.5	22.0	20.5	21.0	22.5	21.5	22.5	18.5	17.5	18.0
21	21.0	20.0	20.5	21.0	19.5	20.0	22.5	21.5	22.0	19.0	17.5	18.0
22	21.0	19.0	20.0	20.0	19.0	19.5	22.0	21.5	21.5	19.5	18.0	19.0
23	22.5	20.0	21.0	20.5	19.5	20.0	22.0	21.0	21.5	19.5	18.5	19.0
24	23.5	21.0	22.0	20.0	18.5	19.0	22.5	21.0	22.0	19.5	18.0	18.5
25	24.5	22.0	23.0	19.0	17.5	18.5	22.5	21.5	22.0	18.5	17.5	18.0
26	25.5	23.5	24.0	20.0	19.0	19.5	23.0	22.0	22.5	18.0	17.0	17.5
27	26.0	24.0	25.0	21.0	19.5	20.0	23.0	22.0	22.5	17.5	16.5	17.0
28	26.5	24.5	25.5	22.0	20.0	21.0	23.5	22.5	23.0	17.5	16.5	17.0
29	26.0	24.5	25.0	22.0	20.5	21.5	23.5	22.5	23.0	18.0	16.5	17.0
30	26.0	24.5	25.0	21.5	21.0	21.5	24.0	23.0	23.5	18.0	17.0	17.5
31	---	---	---	22.0	20.0	21.0	25.0	23.5	24.0	---	---	---
MONTH	26.5	15.5	21.5	26.0	17.5	22.0	25.5	20.5	23.0	24.5	16.5	19.5
YEAR	26.5	2.5	[illegible]									

14321400 ELK CREEK NEAR ELKHEAD, OR

LOCATION.--Lat 43°35'45", long 123°11'35", in NW 1/4 SE 1/4 sec.5, T.23 S., R.4 W., Douglas County, Hydrologic Unit 17100303, on right bank downstream side of Milltown Hill Bridge, 1.5 mi upstream from Adams Creek, 4.0 mi north of Elkhead, and at mile 37.7.

DRAINAGE AREA.--28.7 mi^2.

PERIOD OF RECORD.--January to August 1968 (gage heights and discharge measurements only), September 1968 to June 1972, October 1986 to September 1987.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 463.99 ft above National Geodetic Vertical Datum of 1929 (Douglas County Highway Department bench mark). Prior to Sept. 1, 1968, nonrecording gage at site 20 ft upstream at datum 1.70 ft lower.

REMARKS.--Estimated daily discharges: Oct. 21-24, 28, Nov. 22 to Dec. 18. Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft^3/s Dec. 21, 1969, gage height, 7.74 ft; minimum discharge, 0.36 ft^3/s Sept. 9, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 820 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 28	2100	1,660	5.39	Feb. 2	0130	*1,820	5.51
Nov. 28	2100	(a)	6.61	Feb. 2	0130	(a)	*6.83

Minimum discharge, 0.56 ft^3/s July 15, 16.

(a) From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	44	135	294	635	44	31	14	9.4	1.2	2.6	1.2
2	7.3	28	100	253	833	41	29	14	7.1	1.2	2.4	1.1
3	6.1	19	82	216	238	39	28	14	5.7	1.2	2.2	.69
4	5.0	15	68	159	170	35	27	13	5.1	1.3	2.0	.76
5	4.4	13	60	111	112	35	25	11	4.8	1.5	1.9	.91
6	3.8	10	50	86	84	35	24	11	4.4	1.5	1.7	.99
7	3.3	17	45	72	74	30	23	10	4.4	1.5	1.6	.95
8	3.0	25	42	57	65	30	25	9.0	4.0	1.2	1.6	.85
9	2.8	28	38	50	58	33	22	8.1	3.7	1.1	1.5	.85
10	2.8	35	36	45	54	30	24	7.0	3.6	1.2	1.2	.85
11	2.8	30	35	41	54	32	30	6.9	3.2	1.2	1.5	.93
12	2.8	25	37	65	49	48	30	6.8	3.2	1.2	1.5	1.1
13	2.8	19	42	106	109	58	27	7.3	3.0	1.1	1.5	1.4
14	2.6	18	48	101	192	88	24	6.8	3.0	.85	2.3	1.6
15	2.6	18	43	86	146	86	22	6.3	2.7	.66	2.7	1.7
16	2.5	17	38	70	119	70	21	6.8	2.8	.61	2.4	1.6
17	2.8	15	32	56	94	70	20	6.7	2.9	.98	1.9	1.8
18	4.3	17	31	50	86	88	22	6.6	2.7	8.1	1.8	1.6
19	5.3	31	34	45	80	101	20	6.2	2.4	29	1.6	1.6
20	4.1	81	31	41	72	82	18	5.8	2.3	9.6	1.3	1.8
21	3.0	246	28	37	72	72	17	5.6	2.6	11	1.3	1.9
22	2.6	265	39	34	70	60	16	5.4	3.1	12	1.2	1.7
23	2.6	160	76	38	75	80	16	5.3	2.9	10	1.3	1.4
24	2.8	110	78	110	70	71	14	5.3	2.4	7.0	1.2	1.3
25	5.0	105	71	352	63	63	14	8.8	2.2	5.8	1.1	1.3
26	6.5	110	82	342	56	57	13	9.5	1.9	4.7	1.2	1.5
27	13	500	69	282	53	51	13	7.5	1.7	4.1	1.2	1.7
28	10	600	54	266	48	46	12	6.9	1.5	3.6	1.1	1.6
29	13	340	65	193	---	41	12	6.0	1.4	3.1	.99	1.6
30	26	190	60	129	---	38	13	6.2	1.3	2.8	1.2	1.6
31	39	---	53	166	---	34	---	9.3	---	2.7	1.2	---
TOTAL	202.3	3131	1702	3953	3831	1688	631	253.1	101.4	133.00	50.19	39.90
MEAN	6.53	104	54.9	128	137	54.5	21.0	8.16	3.38	4.29	1.62	1.33
MAX	39	600	135	352	833	101	31	14	9.4	29	2.7	1.9
MIN	2.5	10	28	34	48	30	12	5.3	1.3	.61	.99	.69
AC-FT	401	6210	3380	7840	7600	3350	1250	502	201	264	100	79
CFSM	.23	3.64	1.91	4.44	4.77	1.90	.73	.28	.12	.15	.06	.05
IN.	.26	4.06	2.21	5.12	4.97	2.19	.82	.33	.13	.17	.07	.05

WTR YR 1987 TOTAL 15715.89 MEAN 43.1 MAX 833 MIN .61 AC-FT 31170 CFSM 1.50 IN. 20.37

14324580 PONY CREEK AT COOS BAY, OR

LOCATION.--Lat 43°22'50", long 124°14'25", in NE 1/4 NE 1/4 sec.28, T.25 S., R.13 W., Coos County, Hydrologic Unit 17100304, on right bank, 10 ft upstream from outlet to Lower Pony Creek Dam, and at mile 2.2. Prior to Oct. 1, 1982, at site 260 ft downstream.

DRAINAGE AREA.--3.90 mi^2.

PERIOD OF RECORD.--July 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is at National Geodetic Vertical Datum of 1929 (Coos Bay-North Bend Water Board bench mark). Prior to Oct. 1, 1982, at site 260 ft downstream at datum 12.23 ft higher.

REMARKS.--No estimated daily discharges. Records good above 0.30 ft^3/s, poor below. Flow regulated by Upper and Lower Pony Creek Reservoirs (stations 14324550 and 14324560) and diversion upstream from station from Lower Pony Creek Reservoir to municipal water supply of Coos Bay-North Bend (station 14323570). Approximately 4.6 ft^3/s is diverted to the Coos Bay-North Bend water treatment plant, maximum capacity, 10.8 ft^3/s.

AVERAGE DISCHARGE.--12 years, 10.7 ft^3/s, 37.26 in/yr, 7,750 acre-ft/yr, adjusted for Coos Bay-North Bend diversion and change in contents of Upper and Lower Pony Creek Reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft^3/s Dec. 6, 1981, gage height, 6.19 ft, former site and datum; minimum discharge, 0.01 ft^3/s several days in 1977, 1985, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95 ft^3/s Feb. 2, gage height, 30.98 ft; minimum discharge, 0.02 ft^3/s many days.

MONTHLY DISCHARGE OF PONY CREEK, PONY CREEK DIVERSION AND MONTHLY CHANGE IN CONTENTS OF RESERVOIRS NEAR COOS BAY, OR, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	14324580 Pony Creek at Coos Bay (acre-feet)	14324570 Diversion from Lower Pony Cr. Reservoir to City of Coos Bay (acre-feet)	14324560 Lower Pony Creek Reservoir Change in Contents (acre-feet)	14324550 Upper Pony Creek Reservoir Change in Contents (acre-feet)	Pony Creek adjusted for diversion and change in contents (acre-feet)	(inches)
October	50	329	-19	-160	200	0.96
November	66	300	+41	+521	928	4.46
December	41	301	+5.6	+202	550	2.64
CAL YR 1986	2,[illegible]81	4,563	+36	+742	7,820	37.62
January	999	325	+1.6	+18	340	6.46
February	1,103	271	-12	+20	380	6.65
March	893	306	+7.5	+286	1,490	7.17
April	198	355	-4.2	-5	544	2.62
May	15	414	-29	-88	312	1.50
June	1.7	444	-10	-218	218	1.05
July	1.8	475	+14	-328	163	0.78
August	1.4	499	+4.3	-414	129	0.62
September	1.5	428	-19	-378	32	0.16
WTR YR 1987	3,371	4,447	-18	-544	7,260	34.89

14324580 PONY CREEK AT COOS BAY, OR--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.02	.63	25	35	.02	6.9	1.8	.05	.02	.04	.03
2	.03	3.2	.04	27	82	.03	6.2	2.3	.04	.02	.03	.02
3	.03	1.0	.02	37	52	.65	6.3	1.1	.05	.02	.02	.02
4	.03	.03	.02	38	34	.57	5.5	1.4	.03	.02	.02	.02
5	.03	.03	.02	31	25	.08	4.7	.36	.03	.02	.02	.02
6	.05	.04	.02	26	19	.88	5.7	.10	.02	.02	.02	.02
7	.05	.05	.02	19	16	.41	3.6	.04	.02	.02	.02	.02
8	.05	.02	.02	13	13	.06	4.0	.03	.02	.02	.02	.02
9	.04	.03	.02	7.8	12	.90	3.3	.03	.02	.03	.02	.02
10	.05	.06	.02	5.8	11	.13	6.2	.03	.02	.05	.03	.02
11	.05	.02	.02	4.3	10	.37	4.6	.03	.03	.05	.02	.02
12	.05	.02	.02	8.6	11	14	5.3	.03	.02	.03	.03	.02
13	.05	.02	.02	9.4	29	38	4.8	.03	.02	.03	.03	.02
14	.05	.02	.02	9.8	25	58	3.5	.02	.02	.03	.02	.02
15	.05	.02	.02	8.2	26	51	2.0	.02	.02	.02	.03	.03
16	.06	.02	.03	6.7	24	39	1.8	.02	.02	.04	.03	.04
17	.07	.02	.03	6.0	19	32	2.7	.04	.02	.06	.02	.03
18	.08	.02	.04	4.9	16	28	6.9	.03	.02	.06	.02	.02
19	.03	.02	.07	4.7	14	26	4.1	.04	.03	.05	.02	.03
20	.02	.02	.07	3.9	12	21	4.8	.04	.03	.04	.02	.05
21	.02	.02	.07	3.8	16	18	1.4	.04	.05	.04	.02	.06
22	.02	.02	.06	3.3	14	15	1.1	.03	.07	.04	.02	.03
23	.02	.02	.03	6.2	14	21	1.8	.03	.05	.03	.02	.02
24	.02	.02	.03	8.3	11	17	.67	.02	.02	.02	.02	.02
25	.03	.02	.04	19	9.4	13	.60	.02	.02	.02	.02	.02
26	.07	.02	.04	27	5.3	12	.27	.02	.02	.02	.02	.02
27	.05	12	.03	28	.14	11	.96	.02	.02	.02	.02	.02
28	.06	12	.03	35	.07	9.6	.06	.02	.02	.02	.02	.02
29	22	3.6	2.2	32	---	8.4	.03	.02	.03	.02	.02	.02
30	1.8	.93	8.1	25	---	7.7	.03	.02	.03	.02	.03	.02
31	.02	---	8.8	20	---	6.2	---	.05	---	.02	.03	---
TOTAL	25.01	33.33	20.60	503.7	554.91	450.00	99.82	7.78	0.86	0.92	0.72	0.74
MEAN	.81	1.11	.66	16.2	19.8	14.5	3.33	.25	.029	.030	.023	.025
MAX	22	12	8.8	38	82	58	6.9	2.3	.07	.06	.04	.06
MIN	.02	.02	.02	3.3	.07	.02	.03	.02	.02	.02	.02	.02
AC-FT	50	66	41	999	1100	893	198	15	1.7	1.8	1.4	1.5

CAL YR 1986 TOTAL 1250.78 MEAN 3.43 MAX 84 MIN .02 AC-FT 2480
WTR YR 1987 TOTAL 1698.39 MEAN 4.65 MAX 82 MIN .02 AC-FT 3370

14325000 SOUTH FORK COQUILLE RIVER AT POWERS, OR

LOCATION.--Lat 42°53'30", long 124°04'10", in SE 1/4 sec.12, T.31 S., R.12 W., Coos County, Hydrologic Unit 17100305, on left bank 0.6 mi downstream from highway bridge at Powers, 0.9 mi upstream from Woodward Creek, and at mile 64.5.

DRAINAGE AREA.--169 mi².

PERIOD OF RECORD.--September 1916 to September 1926, October 1928 to current year.

REVISED RECORDS.--WSP 1184: 1946(M). WSP 1448: 1917-18(M), 1919, 1920(M), 1925.

GAGE.--Water-stage recorder. Datum of gage is 197.42 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1938, nonrecording gage at various sites within 1 mi of present site at different datums.

REMARKS.--No estimated daily discharges. Records good. No regulation. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--68 years (water years 1917-26, 1930-87), 794 ft³/s, 63.80 in/yr, 575,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft³/s Dec. 22, 1964, gage height, 26.51 ft, from floodmarks, from rating curve extended above 19,000 ft³/s on basis of contracted-opening measurement at gage height 18.14 ft and slope-area measurement of peak flow; minimum discharge, 8.8 ft³/s Sept. 28, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,300 ft³/s and maximum (*):

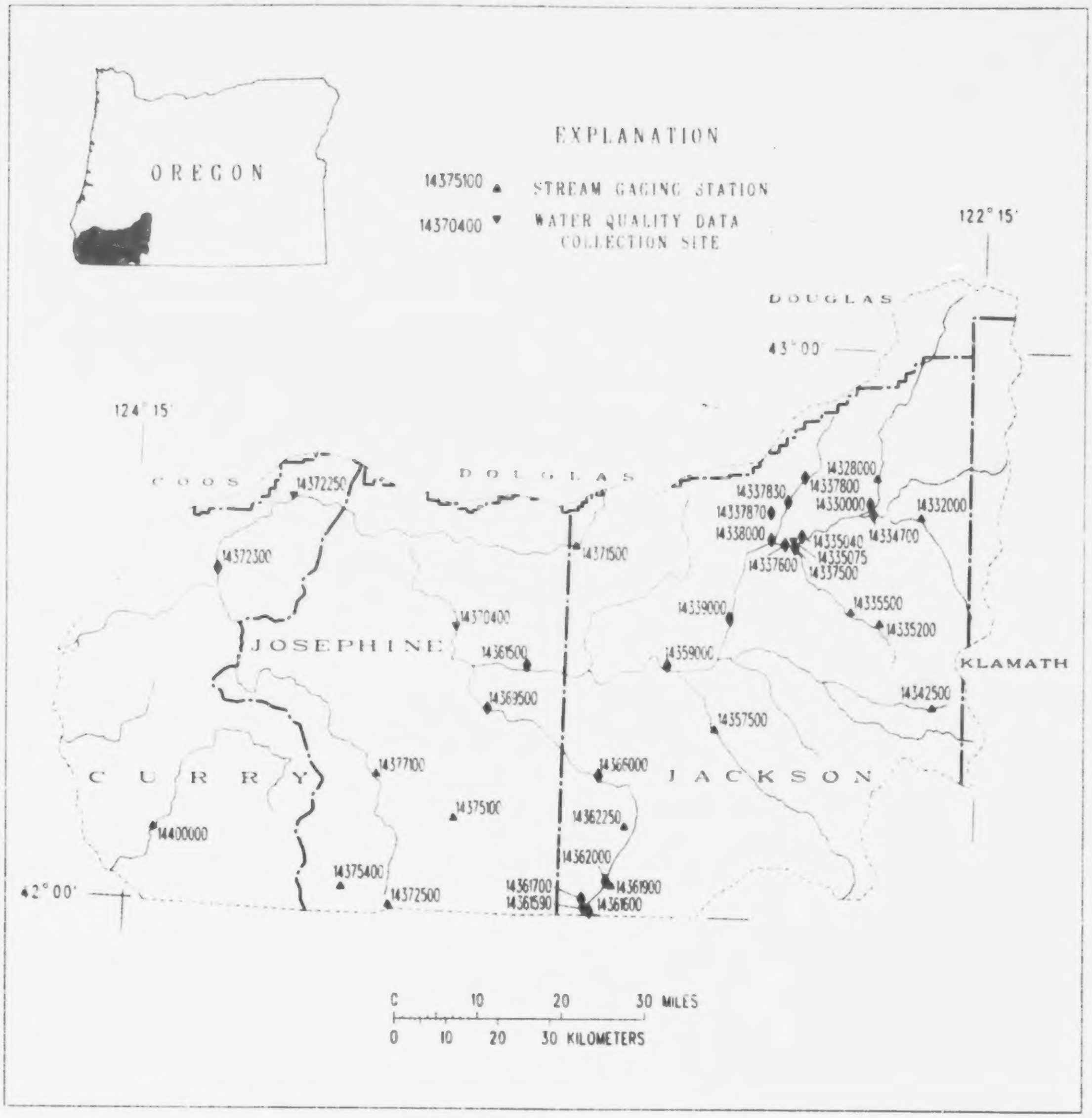
Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov. 28	0600	10,300	10.26	Mar. 12	1600	9,400	9.72
Feb. 2	0130	*13,100	*11.79				

Minimum discharge, 8.8 ft³/s Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	463	1370	4310	6040	564	470	242	158	34	24	13
2	158	325	1010	3620	8520	569	430	345	117	34	24	13
3	135	249	785	3580	3600	3500	401	348	100	34	22	12
4	119	201	651	2930	2290	2340	369	269	87	35	21	13
5	107	171	635	2030	1640	2200	340	224	79	35	20	13
6	97	150	553	1460	1260	2030	322	196	76	35	19	13
7	89	199	475	1120	1010	1540	304	174	72	35	18	13
8	83	293	421	904	833	1300	286	158	68	36	18	13
9	78	258	378	751	707	1490	267	146	66	37	18	13
10	74	272	339	644	612	1260	262	136	63	38	18	13
11	70	243	308	565	569	1430	298	128	59	38	18	13
12	67	210	291	680	577	6190	271	124	58	36	18	13
13	64	185	396	932	2460	4770	247	124	56	34	18	13
14	61	175	558	886	2580	4190	227	117	53	32	21	13
15	59	158	530	884	2560	3240	211	112	55	29	22	12
16	58	142	441	772	2550	2420	202	111	56	27	20	12
17	59	133	385	676	1920	1960	205	106	54	30	18	13
18	62	145	361	597	1530	1940	249	102	51	37	17	12
19	60	376	517	528	1220	1920	231	97	48	37	16	11
20	57	531	452	475	1000	1610	209	95	46	34	16	11
21	56	1530	398	433	1110	1330	196	93	48	31	16	11
22	54	2930	1020	406	1250	1100	186	88	49	30	16	11
23	52	1560	1860	468	1360	1220	176	86	45	29	16	11
24	52	1140	1440	1990	1190	1230	167	86	43	28	16	11
25	52	1170	1130	5070	982	1100	158	91	41	27	16	11
26	77	1200	987	5100	818	957	152	91	40	28	15	11
27	288	6550	801	4140	701	830	144	87	38	26	15	11
28	210	7970	663	4600	622	726	138	84	36	26	14	11
29	300	3460	1270	3540	---	640	133	81	35	26	14	11
30	1050	2040	1260	2510	---	568	136	83	35	25	13	11
31	771	---	1200	2560	---	515	---	163	---	24	13	---
TOTAL	4711	34429	22885	59161	51511	56679	7387	4387	1832	987	550	362
MEAN	152	1148	738	1908	1840	1828	246	142	61.1	31.8	17.7	12.1
MAX	1050	7970	1860	5100	8520	6190	470	348	158	38	24	13
MIN	52	133	291	406	569	515	133	81	35	24	13	11
AC-FT	9340	68290	45390	117300	102200	112400	14650	8700	3630	1960	1090	718
CFSM	.90	6.79	4.37	11.3	10.9	10.8	1.46	.84	.36	.19	.10	.07
IN.	1.04	7.58	5.04	13.02	11.34	12.48	1.63	.97	.40	.22	.12	.08

CAL YR 1986 TOTAL 301686 MEAN 827 MAX 9050 MIN 14 AC-FT 598400 CFSM 4.89 IN. 66.41
WTR YR 1987 TOTAL 244881 MEAN 671 MAX 8520 MIN 11 AC-FT 485700 CFSM 3.97 IN. 53.90


OREGON
EXPLANATION
14375100 ▲ STREAM GAGING STATION
14370400 ▼ WATER QUALITY DATA COLLECTION SITE
122° 15'
43° 00'
124° 15'
42° 00'
DOUGLAS
COOS
DOUGLAS
JOSEPHINE
CURRY
JACKSON
KLAMATH
14372250
14372300
14371500
14370400
14361500
14369500
14377100
14375100
14400000
14375400
14372500
14366000
14362250
14362000
14361700
14361590
14361900
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14337830
14337800
14337870
14330000
14332000
14338000
14335040
14334700
14335075
14337600
14337500
14339000
14335500
14335200
14359000
14342500
14357500
0 10 20 30 MILES
0 10 20 30 KILOMETERS

Figure 7.--Location of surface-water and water-quality stations in the Rogue River, Applegate River, Illinois River, and Chetco River basins.

14328000 ROGUE RIVER ABOVE PROSPECT, OR

LOCATION.--Lat 42°46'30", long 122°29'55", in SE 1/4 NE 1/4 sec.19, T.32 S., R.3 E., Jackson County, Hydrologic Unit 17100307, Rogue River National Forest, on left bank 1.4 mi upstream from Pacific Power and Light Co. diversion dam, 1.8 mi northwest of Prospect, and at mile 173.4.

DRAINAGE AREA.--312 mi².

PERIOD OF RECORD.--January 1908 to February 1912, October 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1925, published as "near Prospect."

REVISED RECORDS.--WSP 1248: 1925, 1927(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,620 ft, from river-profile map. Prior to Feb. 17, 1912, nonrecording gage at several sites within a few hundred feet upstream at various datums.

REMARKS.--Estimated daily discharges: Oct. 2 to Nov. 18, July 2 to Sept. 10. Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--67 years (water years 1909-11, 1924-87), 829 ft³/s, 36.08 in/yr, 600,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s Dec. 22, 1964, gage height, 11.55 ft, from floodmark, from rating curve extended above 9,000 ft³/s on basis of slope-area measurement at 16,600 ft³/s; minimum observed discharge, 200 ft³/s Nov. 20, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 26	0430	*2,060	*3.39				

Minimum discharge, 330 ft³/s Sept. 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	645	680	767	761	1250	652	912	1190	623	434	400	350
2	640	650	722	811	1670	644	1030	1090	567	430	390	350
3	620	640	692	809	1480	670	1090	1060	551	420	380	350
4	600	620	678	774	1190	785	1050	1050	542	420	380	340
5	590	610	723	702	1060	1100	1030	1070	535	410	380	340
6	580	640	713	648	1000	1340	982	1120	526	410	370	340
7	590	800	675	593	997	1080	969	1140	519	400	370	340
8	600	740	649	563	997	1020	1080	1110	519	400	370	340
9	590	800	622	560	993	1010	1120	1090	518	390	370	340
10	580	800	602	565	991	957	1130	1050	506	390	370	340
11	580	730	587	553	1080	944	1300	994	489	390	370	340
12	570	680	585	554	1080	1180	1110	959	478	390	370	340
13	570	670	603	553	1770	1480	1060	925	471	390	370	340
14	560	660	653	537	1630	1380	1080	877	463	380	370	340
15	570	650	604	504	1450	1200	1150	845	468	380	360	340
16	580	640	584	486	1250	1090	1180	815	475	380	360	340
17	590	640	571	484	1130	1060	1290	770	472	550	360	340
18	600	670	570	489	1080	1080	1190	731	462	850	360	340
19	590	726	569	489	1010	1010	1060	692	455	700	360	340
20	580	669	556	484	952	950	1010	666	445	600	360	340
21	580	1100	545	476	909	907	1030	649	470	750	360	340
22	580	1140	576	442	848	854	1150	627	460	900	360	336
23	570	1060	670	454	817	884	1280	611	443	650	360	334
24	570	994	645	491	778	831	1270	634	433	560	350	334
25	580	946	613	959	724	815	1210	617	427	520	350	334
26	640	875	622	1850	696	807	1200	601	422	490	350	334
27	760	935	616	1540	683	791	1320	586	418	460	350	334
28	650	1030	598	1530	665	771	1410	577	413	450	350	333
29	720	926	622	1180	---	758	1360	564	410	440	350	330
30	950	821	629	1050	---	762	1290	556	417	420	350	330
31	800	---	621	985	---	805	---	694	---	410	350	---
TOTAL	19225	23542	19482	22876	30180	29617	34343	25960	14397	15164	11300	10169
MEAN	620	785	628	738	1078	955	1145	837	480	489	365	339
MAX	950	1140	767	1850	1770	1480	1410	1190	623	900	400	350
MIN	560	610	545	442	665	644	912	556	410	380	350	330
AC-FT	38130	46700	38640	45370	59860	58750	68120	51490	28560	30080	22410	20170
CFSM	1.99	2.52	2.01	2.37	3.45	3.06	3.67	2.68	1.54	1.57	1.17	1.09
IN.	2.29	2.81	2.32	2.73	3.60	3.53	4.09	3.10	1.72	1.81	1.35	1.21

CAL YR 1986 TOTAL 332145 MEAN 910 MAX 6000 MIN 421 AC-FT 658800 CFSM 2.92 IN. 39.60
WTR YR 1987 TOTAL 256255 MEAN 702 MAX 1850 MIN 330 AC-FT 508300 CFSM 2.25 IN. 30.55

14330000 ROGUE RIVER BELOW PROSPECT, OR

LOCATION.--Lat 42°43'50", long 122°30'55", in SE 1/4 NW 1/4 sec.6, T.33 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 600 ft downstream from Prospect No. 1 powerplant, 1.4 mi downstream from Mill Creek, 2.0 mi southwest of Prospect, 2.1 mi upstream from South Fork Rogue River, and at mile 169.4.

DRAINAGE AREA.--379 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1913 to September 1930, October 1968 to current year.

REVISED RECORDS.--WSP 1518: 1914-23, 1924(M), 1925, 1928.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,964.56 ft above National Geodetic Vertical Datum of 1929 (Pacific Power and Light Co. bench mark). Prior to September 1927 nonrecording gage at site 1,000 ft upstream, above powerplants, at different datum, also concurrent nonrecording gage on headrace to obtain equivalent combined flow.

REMARKS.--Estimated daily discharges: Oct. 18-22, Apr. 5-10, July 21, 22. Water-discharge records good. Fluctuations caused by powerplant 600 ft upstream from station. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--36 years, 1,299 ft^3/s, 941,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft^3/s Jan. 18, 1971, gage height, 7.62 ft, from high-water mark; minimum discharge, 205 ft^3/s Sept. 17, 22, 24, 1980, caused by regulation of diversion gates upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 12.4 ft Dec. 22, 1964, from floodmarks, discharge, 25,000 ft^3/s, from records for station upstream from Prospect (station 14328000) and for station downstream from South Fork Rogue River near Prospect (station 14335000) after adjusting for estimated intervening tributary inflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,960 ft^3/s Jan. 26, gage height, 4.51 ft, caused by regulation of diversion gates upstream, 5.24 ft, from crest-stage gage; minimum discharge, 284 ft^3/s Sept. 5, caused by regulation of diversion gates upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	1300	1360	1420	1880	1330	1590	1950	1250	1060	973	768
2	1110	1180	1310	1500	2330	1320	1730	1840	1200	1070	967	780
3	1070	1150	1280	1490	2060	1350	1800	1820	1150	1030	963	820
4	1170	1150	1250	1440	1860	1460	1770	1780	1150	1020	943	829
5	1170	1120	1310	1340	1750	1730	1750	1800	1250	1010	946	835
6	1020	1120	1310	1300	1670	1950	1720	1840	1230	1010	932	827
7	993	1140	1260	1240	1670	1730	1700	1820	1220	1010	928	824
8	1020	1110	1270	1180	1660	1670	1700	1640	1110	999	917	826
9	1010	1220	1250	1180	1660	1650	1770	1810	1100	991	915	829
10	995	1330	1240	1190	1650	1600	1850	1760	1080	990	908	820
11	1010	1240	1210	1170	1760	1570	1970	1710	1070	985	903	816
12	1050	1200	1210	1170	1760	1770	1820	1680	1160	974	900	815
13	916	1190	1230	1170	2390	2090	1780	1640	1140	971	895	817
14	939	1220	1300	1150	2260	2010	1800	1590	1130	962	906	815
15	919	1230	1240	1070	2060	1890	1870	1550	1030	957	896	806
16	926	1180	1210	869	1900	1780	1910	1520	1020	949	891	800
17	978	1210	1190	914	1800	1760	1990	1460	1040	975	831	811
18	1000	1200	1190	997	1740	1780	1930	1410	973	1280	774	808
19	1000	1360	1190	1100	1650	1710	1790	1380	1100	1260	799	807
20	990	1300	1170	1080	1590	1650	1730	1370	1080	1100	793	805
21	990	1730	1150	1070	1550	1600	1760	1370	1130	1100	788	809
22	980	1780	1190	1080	1490	1550	1900	1350	958	1600	791	804
23	964	1670	1300	1100	1460	1590	1990	1330	937	1240	794	800
24	950	1580	1270	1150	1420	1540	1980	1350	1070	1130	809	802
25	929	1560	1230	1580	1390	1520	1950	1340	1060	1100	782	807
26	922	1480	1250	2410	1380	1520	1930	1320	1050	1060	782	804
27	1060	1540	1240	2050	1370	1490	2000	1320	1040	1030	780	802
28	1030	1650	1200	2090	1350	1470	2090	1320	1040	1020	775	799
29	985	1560	1230	1830	---	1460	2060	1190	1030	1010	769	801
30	1300	1430	1250	1690	---	1450	2020	1290	1040	997	770	791
31	1460	---	1240	1620	---	1510	---	1450	---	992	780	---
TOTAL	32016	40130	38530	41640	48510	50500	55650	48200	32838	32882	26600	24277
MEAN	1033	1338	1243	1343	1732	1629	1855	1555	1095	1061	858	809
MAX	1460	1780	1360	2410	2390	2090	2090	1950	1250	1600	973	835
MIN	916	1110	1150	869	1350	1320	1590	1190	937	949	769	768
AC-FT	63500	79600	76420	82590	96220	100200	110400	95600	65130	65220	52760	48150

CAL YR 1986 TOTAL 570587 MEAN 1563 MAX 7700 MIN 866 AC-FT 1132000
WTR YR 1987 TOTAL 471773 MEAN 1293 MAX 2410 MIN 768 AC-FT 935800

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to September 1981.
pH: November 1976 to September 1981.
WATER TEMPERATURE: October 1968 to current year.
DISSOLVED OXYGEN: October 1979 to September 1981.
SUSPENDED SEDIMENT DISCHARGE: November 1976 to September 1981 (October to April only, 1980 water year, November to April only, 1981 water year).

INSTRUMENTATION.--Water-quality monitor since November 1976. Automatic pumping sediment sampler November 1976 to April 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 73 microsiemens Sept. 22, 1980; minimum recorded, 28 microsiemens Jan. 13, 1980, may have been lower during period of missing record Jan. 14-17, 1980.
pH: Maximum recorded, 8.3 units Aug. 10, 1981, may have been higher during period of no record in July and August 1981; minimum, 7.0 units Nov. 30, 1976.
WATER TEMPERATURE: Maximum, 20.5°C July 20, 1979 (result of regulation); minimum, 0.0°C Jan. 1, 2, 4, 5, 1970, Mar. 1, 1971, Jan. 26, 29-31, Feb. 2, 1979, Jan. 29, 30, 1980, Nov. 23, Dec. 12, 1985, Jan. 16, 17, 1987.
DISSOLVED OXYGEN: Maximum, 13.6 mg/l Dec. 8, 1980, Feb. 21, 1981; minimum, 7.2 mg/l June 21, 1980, result of regulation.
SEDIMENT CONCENTRATIONS: Maximum daily mean (water years 1977-79), 1,270 mg/l (estimated) Jan. 11, 1979; minimum, 0 mg/l on many days each year. Maximum daily mean (period October 1979 to April 1981), 716 mg/l Oct. 25, 1979; minimum daily mean, 0 mg/l on several days in October and December 1979, Nov. 15-21, 28, Dec. 1, 1980, Jan. 19, 1981.
SEDIMENT DISCHARGE: Maximum daily (water years 1977-79), 17,790 tons Dec. 15, 1977; minimum daily, 0 tons on many days each year. Maximum daily (period October 1979 to April 1981), 5,570 tons Jan. 13, 1980; minimum daily, 0 tons on several days in October and December 1979, Nov. 15-21, 28, Dec. 1, 1980, Jan. 19, 1981.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 15.0°C June 27-30, July 13; minimum, 0.0°C Jan. 16, 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.0	6.0	6.5	6.0	5.0	5.5	3.5	3.0	3.0	---	---	---
2	7.0	5.5	6.0	5.5	4.5	5.0	3.5	2.5	3.0	---	---	---
3	7.0	5.5	6.0	5.5	4.5	5.0	3.5	3.0	3.5	---	---	---
4	7.5	5.5	6.5	5.5	4.5	5.0	4.0	3.5	3.5	---	---	---
5	8.0	6.0	7.0	5.5	4.5	5.0	4.0	4.0	4.0	---	---	---
6	8.0	6.5	7.5	5.0	4.5	5.0	4.0	3.5	4.0	3.0	2.0	2.5
7	8.5	7.0	7.5	---	---	---	3.5	3.0	3.0	2.0	1.5	1.5
8	8.0	6.5	7.5	---	---	---	3.0	2.5	2.5	1.5	1.0	1.5
9	8.0	6.5	7.0	---	---	---	3.0	2.5	2.5	2.0	1.0	1.5
10	8.5	6.5	7.5	---	---	---	3.0	2.0	2.5	2.0	1.5	1.5
11	7.5	6.0	6.5	---	---	---	3.0	2.5	2.5	2.5	1.5	2.0
12	7.0	5.0	6.0	---	---	---	3.5	3.0	3.5	2.5	2.0	2.5
13	6.5	5.0	5.5	---	---	---	4.0	3.5	4.0	2.5	2.0	2.5
14	6.5	5.0	5.5	---	---	---	4.5	4.0	4.0	2.0	1.5	2.0
15	6.5	5.0	6.0	---	---	---	4.0	3.0	3.5	1.5	.5	1.0
16	6.5	5.0	6.0	---	---	---	3.5	3.0	3.0	1.0	.0	.5
17	6.5	6.0	6.0	---	---	---	3.0	2.5	3.0	1.0	.0	.5
18	7.0	6.0	6.5	---	---	---	3.5	3.0	3.0	1.0	.5	1.0
19	6.5	5.5	6.0	---	---	---	---	---	---	1.0	.5	.5
20	6.5	5.0	6.0	---	---	---	---	---	---	1.0	.5	1.0
21	6.5	5.0	6.0	5.5	5.0	5.5	---	---	---	1.5	.5	1.0
22	6.5	5.5	6.0	5.0	3.5	4.0	---	---	---	2.0	1.0	1.5
23	6.5	5.5	6.0	4.5	4.0	4.5	---	---	---	2.5	2.0	2.5
24	6.5	5.5	6.0	4.5	4.0	4.5	---	---	---	2.0	1.5	2.0
25	7.5	6.0	6.5	4.0	3.5	4.0	---	---	---	2.5	1.5	2.0
26	7.5	6.5	7.0	4.0	3.5	4.0	---	---	---	---	2.5	---
27	8.0	7.0	7.5	4.5	4.0	4.5	---	---	---	---	---	---
28	7.0	6.0	6.5	4.5	3.5	4.0	---	---	---	---	---	---
29	6.0	5.5	6.0	4.0	3.5	3.5	---	---	---	---	---	---
30	6.5	5.5	6.0	3.5	3.0	3.5	---	---	---	---	---	---
31	6.5	6.0	6.0	---	---	---	---	---	---	---	---	---
MONTH	8.5	5.0	6.5	---	---	---	---	---	---	---	---	---

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	4.0	2.5	3.5	7.0	5.0	6.0	6.5	5.5	6.0
2	---	---	---	4.5	3.5	4.0	6.5	5.5	6.0	5.5	5.0	5.0
3	4.0	---	---	5.0	4.5	5.0	6.0	5.5	5.5	8.0	5.0	6.5
4	4.0	3.5	3.5	5.0	4.5	5.0	6.5	5.0	5.5	9.5	7.0	8.0
5	4.0	3.5	3.5	5.0	4.5	5.0	6.0	5.0	5.5	10.0	8.0	9.0
6	4.5	3.0	3.5	4.5	3.5	4.0	5.5	4.5	5.0	10.5	8.5	9.5
7	4.0	3.0	3.5	4.5	3.0	4.0	7.0	5.0	6.0	10.5	9.0	9.5
8	4.5	3.5	4.0	4.5	4.0	4.0	7.5	6.5	6.5	10.0	9.0	9.5
9	4.5	3.5	4.0	4.5	4.0	4.5	6.5	5.0	6.0	10.5	8.5	9.5
10	5.0	4.0	4.5	4.5	4.0	4.5	6.0	5.0	5.5	10.5	8.5	9.5
11	5.0	4.0	4.5	4.5	4.0	4.0	5.0	4.5	4.5	10.0	8.5	9.0
12	4.0	3.5	4.0	4.5	4.0	4.0	6.0	4.0	5.0	10.5	8.5	9.5
13	4.0	3.5	4.0	4.5	4.0	4.0	6.5	4.5	5.5	10.5	8.0	9.0
14	4.0	3.0	3.5	4.5	3.5	4.0	7.5	5.5	6.5	10.5	9.0	9.5
15	4.0	3.0	3.5	4.5	3.5	4.0	7.0	6.0	6.5	11.0	9.0	10.0
16	4.0	3.0	3.5	4.5	4.0	4.5	7.5	6.0	6.5	11.0	9.0	10.0
17	4.5	3.5	4.0	4.5	4.0	4.5	7.0	5.5	6.5	10.0	8.0	9.0
18	4.0	3.5	4.0	4.0	2.5	3.0	5.5	4.0	4.5	10.0	7.5	9.0
19	3.5	3.0	3.0	4.0	2.5	3.0	5.5	3.5	4.5	9.5	7.0	8.0
20	3.5	2.5	3.0	4.0	3.0	3.5	6.5	4.5	5.5	9.5	6.5	8.0
21	4.0	3.0	3.5	4.5	3.5	4.0	8.0	6.0	7.0	9.5	6.5	8.0
22	3.5	3.0	3.0	5.0	3.0	4.0	8.0	7.0	7.5	10.0	7.0	8.5
23	3.0	2.5	2.5	4.5	3.5	4.0	8.0	7.0	7.5	10.5	7.5	9.0
24	3.0	2.0	2.5	5.0	3.5	4.0	7.5	6.5	7.0	8.5	8.0	8.5
25	3.0	1.5	2.0	5.0	3.5	4.5	8.0	6.0	7.0	8.0	7.0	7.5
26	3.0	1.5	2.0	5.5	4.0	5.0	8.5	7.0	7.5	7.0	7.0	7.0
27	4.0	2.5	3.0	5.0	3.5	4.5	9.0	7.5	8.0	7.0	6.5	7.0
28	4.0	2.5	3.5	5.0	3.0	4.0	8.0	7.0	7.5	8.5	6.0	7.0
29	---	---	---	6.0	3.5	4.5	7.5	7.0	7.5	10.5	7.0	8.5
30	---	---	---	6.0	4.0	5.0	7.5	6.5	7.0	9.0	8.0	8.0
31	---	---	---	6.5	4.5	5.5	---	---	---	8.0	7.0	7.5
MONTH	---	---	---	6.5	2.5	4.0	9.0	3.5	6.0	11.0	5.0	8.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.5	6.0	7.5	13.5	11.5	12.5	13.0	9.5	11.0	12.5	11.0	11.5
2	11.0	7.5	9.0	14.0	11.0	12.5	13.5	10.0	11.5	11.5	10.5	11.0
3	12.5	9.0	10.5	13.5	10.5	12.0	14.0	9.5	12.0	11.0	9.5	10.5
4	13.5	10.0	11.5	13.0	11.0	12.0	14.5	11.0	12.5	11.0	8.5	10.0
5	13.0	10.5	11.5	12.5	10.0	11.0	14.0	10.0	12.5	11.0	8.5	9.5
6	13.0	9.5	11.0	12.5	9.5	11.0	13.5	10.0	12.0	11.0	9.0	10.0
7	11.5	10.0	10.5	12.5	9.5	11.0	13.5	10.5	12.0	11.0	9.0	10.0
8	12.5	9.5	10.5	13.5	10.0	11.5	13.5	10.5	12.0	11.0	9.0	10.0
9	12.5	9.5	11.0	12.5	10.5	11.5	14.0	11.0	12.5	11.0	9.0	10.0
10	12.5	9.0	10.5	13.5	10.5	11.5	13.5	11.0	12.0	11.0	9.5	10.0
11	13.5	9.5	11.0	14.0	10.5	12.0	12.5	10.0	11.5	11.0	9.0	10.0
12	13.5	10.0	12.0	14.0	11.0	12.5	13.0	10.0	11.0	10.5	8.5	9.5
13	14.0	10.5	12.0	14.5	11.5	13.0	12.5	10.0	11.0	10.5	9.0	9.5
14	13.0	11.0	12.0	---	12.0	---	11.5	8.5	10.5	10.0	8.5	9.5
15	12.0	9.5	10.5	---	---	---	12.0	9.0	10.0	9.5	8.5	9.0
16	9.5	8.5	9.0	---	---	---	12.0	8.5	10.0	9.0	7.0	8.0
17	11.0	7.5	9.0	---	---	---	12.5	9.0	10.5	9.0	6.5	8.0
18	11.5	8.0	9.5	---	---	---	12.5	9.5	11.0	9.0	7.0	8.0
19	12.5	9.0	10.5	---	---	---	13.0	10.0	11.5	9.0	7.0	8.0
20	11.5	10.0	10.5	---	---	---	13.0	10.0	11.5	9.5	7.0	8.0
21	10.5	9.0	9.5	---	---	---	12.5	10.0	11.0	9.5	7.5	8.5
22	11.0	7.5	9.5	---	---	---	11.0	10.0	10.5	10.0	7.5	9.0
23	12.5	8.5	10.5	11.5	9.0	---	12.0	9.5	10.5	10.0	8.0	9.0
24	13.0	9.5	11.0	12.5	9.5	10.5	12.5	10.0	11.0	10.0	8.5	9.0
25	14.0	10.5	12.0	12.5	9.5	11.0	12.5	10.0	11.0	9.5	8.0	9.0
26	14.5	11.0	13.0	13.0	10.0	11.5	12.5	10.0	11.0	9.5	8.0	8.5
27	15.0	12.0	13.5	13.0	10.0	12.5	12.5	10.0	11.0	9.0	7.0	8.0
28	15.0	12.0	13.5	13.5	10.0	11.5	13.0	10.0	11.5	9.0	7.0	8.0
29	15.0	12.0	13.5	13.0	10.5	11.5	13.0	10.0	11.5	9.0	7.0	8.0
30	15.0	12.0	13.5	12.0	10.5	11.0	12.5	10.5	11.5	9.5	7.5	8.5
31	---	---	---	12.5	10.0	11.0	12.5	10.5	11.5	---	---	---
MONTH	15.0	6.0	11.0	---	---	---	14.5	8.5	11.5	12.5	6.5	9.0

14332000 SOUTH FORK ROGUE RIVER NEAR PROSPECT, OR

LOCATION.--Lat 42°42'30", long 122°23'30", in SE 1/4 SW 1/4 sec.7, T.33 S., R.4 E., Jackson County, Hydrologic Unit 17100307, in Rogue River National Forest on left bank 0.3 mi downstream from South Fork dam and intake of South Fork power canal, 0.31 mi downstream from Imnaha Creek, 5.6 mi southeast of Prospect, and at mile 10.2.

DRAINAGE AREA.--83.8 mi^2. Drainage area at site upstream from Imnaha Creek used October 1931 to September 1949, 61.3 mi^2; and Imnaha Creek near Prospect, 22.2 mi^2.

PERIOD OF RECORD.--April 1924 to September 1931, October 1949 to current year. Equivalent records for period October 1931 to September 1949 may be obtained from combined flow of South Fork Rogue River above Imnaha Creek, near Prospect and Imnaha Creek near Prospect. Records since October 1983 equivalent to earlier records if South Fork Rogue River power canal diversion is added to flow past station.

REVISED RECORDS.--WSP 1318: 1925(M), 1927(M), 1930(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,300 ft, from topographic map. Prior to Sept. 10, 1965, at site 1,000 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good except those below 6.0 ft^3/s, which are fair. All records given herein do not include flow in South Fork power canal (completed in March 1932) which diverts 1,500 ft upstream from station and returns water to Rogue River upstream from South Fork Rogue River; practically no storage upstream from diversion dam.

AVERAGE DISCHARGE.--59 years (water years 1925-83), 178 ft^3/s, 129,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 7,010 ft^3/s Dec. 22, 1964, gage height, 11.1 ft, from floodmark, from rating curve extended above 410 ft^3/s on basis of measurement of flow over dam of 3,180 ft^3/s; no flow Jan. 31, 1950, Sept. 29, 30, 1967 (entire flow diverted to canal).

Combined flow, maximum discharge, 7,010 ft^3/s Dec. 22, 1964 (no flow in canal); minimum daily, about 38 ft^3/s Aug. 1-31, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 230 ft^3/s May 7, gage height, 2.82 ft; minimum discharge, 0.60 ft^3/s Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	5.3	5.0	6.9	54	4.6	10	89	9.6	4.1	4.4	66
2	3.2	4.4	4.7	5.6	91	4.5	15	64	8.6	3.8	4.3	50
3	3.4	3.8	4.5	4.9	99	4.6	21	64	7.8	3.6	4.1	3.9
4	3.4	9.2	4.5	4.6	59	5.2	17	62	6.6	3.6	3.8	3.8
5	3.4	3.5	4.7	4.3	45	12	15	69	5.7	3.5	3.7	3.8
6	3.3	3.4	4.7	4.0	37	15	13	80	5.6	3.4	4.1	3.7
7	5.1	3.6	4.4	4.0	33	5.2	12	115	5.5	3.3	3.9	3.7
8	5.3	3.6	4.3	4.0	28	4.9	25	73	5.3	3.4	3.7	3.7
9	3.1	5.0	4.1	3.9	25	4.7	29	68	5.3	3.1	3.7	3.9
10	3.0	7.6	3.9	3.7	24	4.6	37	55	5.3	2.9	3.6	4.2
11	3.2	4.4	3.8	3.5	31	8.8	61	39	5.2	2.5	4.4	4.1
12	3.0	4.1	3.8	3.4	30	71	34	30	5.3	2.3	5.4	4.1
13	2.9	4.1	4.0	3.3	68	27	25	22	5.1	2.3	5.4	4.0
14	2.9	4.0	3.9	3.2	66	25	29	15	4.9	2.3	5.1	3.3
15	2.8	4.0	3.8	3.2	57	17	39	12	5.2	2.2	4.6	5.4
16	2.8	3.7	3.6	3.2	44	14	47	11	5.9	2.2	4.5	6.1
17	3.1	3.6	3.6	5.1	38	26	63	11	5.4	24	41	6.9
18	3.0	3.8	3.6	7.4	34	36	56	10	4.8	78	70	4.9
19	5.3	5.1	3.5	3.0	25	25	31	9.9	4.6	53	70	4.8
20	7.4	13	3.4	3.0	20	20	22	9.5	4.6	9.2	70	4.8
21	4.7	77	3.3	2.9	17	17	24	9.4	5.3	5.7	69	4.7
22	4.3	49	3.5	2.6	13	13	47	9.0	4.5	53	69	4.5
23	4.1	38	3.5	2.8	11	18	64	9.0	3.7	11	69	4.3
24	4.0	36	3.4	6.6	7.8	13	65	9.1	3.6	6.3	68	4.3
25	3.8	25	3.2	35	5.5	12	64	9.5	3.8	5.0	68	4.3
26	7.2	15	3.4	38	5.2	11	70	9.2	4.0	4.6	68	4.4
27	21	11	3.0	22	4.9	9.4	87	9.0	3.8	4.2	67	4.2
28	4.0	12	3.2	23	4.8	6.3	99	8.3	3.7	4.0	67	4.2
29	4.1	6.2	3.2	19	---	5.2	88	7.6	3.5	3.8	67	4.1
30	16	5.2	3.1	17	---	5.1	85	7.1	4.7	3.5	67	4.0
31	9.6	---	3.3	15	---	5.4	---	17	---	3.9	67	---
TOTAL	155.6	373.6	117.9	268.1	977.2	450.5	1294	1012.6	156.9	317.7	1065.7	238.1
MEAN	5.02	12.5	3.80	8.65	34.9	14.5	43.1	32.7	5.23	10.2	34.4	7.94
MAX	21	77	5.0	38	99	71	99	115	9.6	78	70	66
MIN	2.8	3.4	3.0	2.6	4.8	4.5	10	7.1	3.5	2.2	3.6	3.3
AC-FT	309	741	234	532	1940	894	2570	2010	311	630	2110	472

CAL YR 1986 TOTAL 25724.8 MEAN 70.5 MAX 1320 MIN 2.8 AC-FT 51030
WTR YR 1987 TOTAL 6427.9 MEAN 17.6 MAX 115 MIN 2.2 AC-FT 12750

14334700 SOUTH FORK ROGUE RIVER, SOUTH OF PROSPECT, OR

LOCATION.--Lat 42°42'45", long 122°30'20", in NW 1/4 SE 1/4 sec.7, T.33 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 200 ft upstream from unnamed tributary, 0.6 mi upstream from Smith Creek, 1.2 mi downstream from Beaver Creek, 2.8 mi southwest of Prospect, and at mile 2.4.

DRAINAGE AREA.--246 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,030 ft, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records good. Some regulation by South Fork canal dam upstream. Power diversions upstream from station from South Fork Rogue River, Middle Fork Rogue River, and Red Blanket Creek divert water to Rogue River via Main Canal. During summer base flow all of streamflow is diverted for power except that for fish life. Base flow at station is principally from springs downstream from power diversions.

AVERAGE DISCHARGE.--19 years, 396 ft^3/s, 286,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,880 ft^3/s Mar. 3, 1972, gage height, 12.71 ft, from floodmark; minimum discharge, 54 ft^3/s Sept. 24-30, 1970, but may have been lower during period of no record Sept. 24-30, 1970, Aug. 16-19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 20.1 ft, Dec. 22, 1964, from floodmarks at gage, discharge, 28,500 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 856 ft^3/s Feb. 3, gage height, 5.68 ft; minimum discharge, 74 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	212	283	244	583	223	264	459	318	109	94	153
2	233	205	271	275	791	217	280	373	283	104	92	147
3	228	173	261	267	752	215	296	379	273	97	91	90
4	134	146	258	244	610	215	282	389	259	98	89	87
5	138	135	276	223	516	248	267	440	150	100	88	86
6	278	127	274	206	469	290	251	495	146	94	89	86
7	286	156	247	186	437	256	245	568	144	92	90	86
8	244	176	198	169	408	251	276	498	245	92	90	87
9	221	181	174	163	385	252	285	519	247	94	89	88
10	206	241	161	158	370	241	298	485	237	94	89	86
11	171	203	156	154	396	258	374	425	218	92	88	87
12	124	203	156	154	382	377	315	402	127	91	90	87
13	207	200	164	150	600	359	272	386	124	89	94	87
14	197	168	168	149	605	372	280	359	121	88	94	86
15	203	147	154	137	563	352	303	351	209	88	92	86
16	203	140	148	151	510	331	308	342	239	87	91	88
17	181	141	144	140	478	359	345	323	205	124	130	82
18	130	148	143	137	454	407	335	307	246	344	184	81
19	116	207	144	136	416	377	283	279	116	299	162	79
20	119	224	139	133	391	357	261	237	110	139	161	79
21	118	518	136	127	373	343	263	211	121	115	159	80
22	117	534	145	127	351	322	309	200	255	296	158	78
23	128	485	147	134	346	352	362	200	239	188	161	78
24	151	436	145	190	324	323	377	233	106	132	159	78
25	163	379	141	415	287	311	374	228	104	127	157	79
26	179	340	146	642	250	300	399	205	103	114	154	79
27	250	317	140	570	240	287	480	185	102	105	154	79
28	178	355	136	550	230	276	518	167	101	100	153	78
29	185	329	139	448	---	268	475	253	103	98	153	78
30	297	297	134	419	---	259	468	156	106	96	152	80
31	266	---	143	393	---	257	---	283	---	95	155	---
TOTAL	5882	7523	5471	7594	12517	9255	9845	10337	5357	3881	3802	2625
MEAN	190	251	176	245	447	299	328	333	179	125	123	87.5
MAX	297	534	283	642	791	407	518	568	318	344	184	153
MIN	116	127	134	127	230	215	245	156	101	87	88	78
AC-FT	11670	14920	10850	15060	24830	18360	19530	20500	10630	7700	7540	5210

CAL YR 1986 TOTAL 150210 MEAN 412 MAX 5280 MIN 102 AC-FT 297900
WTR YR 1987 TOTAL 84089 MEAN 230 MAX 791 MIN 78 AC-FT 166800

14334700 SOUTH FORK ROGUE RIVER SOUTH OF PROSPECT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1968 to current year.
SEDIMENT RECORDS: October 1976 to April 1981 (October to April only 1980 water year, November to April only 1981 water year).

INSTRUMENTATION.--Water temperature recorder since October 1968.
EXTREMES OR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 20.0°C July 18, 19, 1979; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily, 654 mg/l Nov. 26, 1977; minimum daily, 0 mg/l on several days each year.
SEDIMENT DISCHARGE: Maximum daily, 6,180 tons Nov. 26, 1977; minimum daily, 0 tons on several days each year.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 18.0°C June 30, July 14, 15; minimum, 0.0°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	7.5	7.5	7.5	6.5	7.0	3.5	3.0	3.5	5.0	4.5	5.0
2	7.5	6.5	7.0	6.5	6.0	6.5	4.0	3.0	3.5	4.5	4.0	4.0
3	6.5	6.5	6.5	6.0	6.0	6.0	4.5	3.5	4.0	5.0	4.5	4.5
4	7.0	6.5	6.5	6.0	6.0	6.0	5.0	4.0	4.5	4.5	4.0	4.5
5	7.5	7.0	7.5	6.0	6.0	6.0	5.5	4.5	5.0	4.5	4.0	4.5
6	8.0	7.5	8.0	6.0	6.0	6.0	5.5	4.0	5.0	4.0	3.0	3.0
7	8.0	8.0	8.0	6.0	5.5	6.0	4.0	3.0	3.5	3.0	2.0	2.5
8	8.0	8.0	8.0	5.5	5.5	5.5	3.5	3.0	3.0	2.5	1.0	2.0
9	8.0	8.0	8.0	5.5	5.5	5.5	3.5	2.5	3.0	2.5	1.5	2.0
10	8.0	8.0	8.0	6.0	5.5	6.0	3.0	2.5	3.0	3.0	2.5	2.5
11	8.0	7.5	8.0	6.0	5.0	5.5	4.0	2.5	3.0	3.0	2.5	3.0
12	7.5	7.0	7.5	5.0	5.0	5.0	4.0	4.0	4.0	4.0	3.0	3.5
13	7.0	6.5	6.5	5.0	5.0	5.0	5.0	4.0	4.5	4.0	3.5	3.5
14	6.5	6.0	6.5	5.5	5.0	5.5	5.0	4.5	4.5	3.5	3.0	3.0
15	6.5	6.0	6.0	5.5	5.5	5.5	4.5	3.5	3.5	3.0	1.0	1.5
16	6.5	6.5	6.5	6.0	6.0	6.0	4.0	3.5	3.5	1.0	.0	.5
17	7.0	6.5	6.5	6.5	6.0	6.5	3.5	3.0	3.0	1.5	.5	1.0
18	7.5	7.0	7.0	6.5	6.0	6.5	4.5	3.5	4.0	3.0	1.5	2.0
19	7.5	7.0	7.5	6.0	6.0	6.0	4.5	4.0	4.0	2.5	1.0	1.5
20	7.0	6.5	7.0	6.5	6.0	6.5	4.0	3.5	3.5	2.0	1.0	1.5
21	6.5	6.5	6.5	6.5	6.5	6.5	4.5	3.5	4.0	3.0	2.0	2.5
22	6.5	6.5	6.5	6.5	5.5	6.0	5.5	4.5	5.0	4.0	3.0	3.5
23	7.0	6.5	7.0	5.5	5.5	5.5	5.5	5.0	5.0	4.5	4.0	4.0
24	7.0	7.0	7.0	5.5	5.5	5.5	5.0	4.0	4.5	4.5	4.0	4.0
25	7.5	7.0	7.5	5.5	5.0	5.5	4.5	3.5	4.0	4.5	4.0	4.0
26	8.0	7.5	8.0	5.5	5.0	5.0	5.0	4.5	4.5	5.0	4.0	4.5
27	8.0	8.0	8.0	6.0	5.5	5.5	4.5	3.0	3.5	5.0	3.5	4.5
28	8.0	7.5	8.0	5.5	4.0	4.5	3.5	2.5	3.0	5.0	4.0	4.5
29	7.5	7.0	7.5	5.0	4.0	4.5	5.0	3.5	4.0	5.0	4.5	4.5
30	7.0	7.0	7.0	4.0	3.5	3.5	4.0	3.0	3.5	5.0	4.5	4.5
31	7.0	7.0	7.0	---	---	---	5.0	3.5	4.0	5.0	4.0	4.5
MONTH	8.0	6.0	7.0	7.5	3.5	5.5	5.5	2.5	4.0	5.0	.0	3.0

14334700 SOUTH FORK ROGUE RIVER SOUTH OF PROSPECT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	5.0	5.0	6.0	4.0	5.0	10.0	5.5	8.0	8.0	6.5	7.0
2	5.5	5.0	5.0	6.5	5.0	5.5	10.0	6.5	8.0	7.0	6.0	6.5
3	5.5	5.0	5.0	7.5	6.0	7.0	8.5	7.0	7.5	11.5	6.5	8.5
4	5.5	4.0	4.5	7.5	6.5	7.0	9.5	6.5	7.5	12.0	7.5	9.5
5	5.5	4.0	5.0	7.5	6.5	7.0	8.5	6.0	7.0	12.5	8.0	10.0
6	6.0	4.0	5.0	6.5	5.5	6.0	8.0	5.5	7.0	13.0	8.5	10.5
7	6.0	4.0	5.0	6.5	4.0	5.0	10.0	7.0	8.5	12.0	8.5	10.0
8	6.5	5.0	5.5	6.5	5.5	6.0	10.5	7.5	9.0	12.0	8.5	10.5
9	6.5	4.5	5.5	6.5	5.5	6.0	9.5	6.0	8.0	12.5	9.0	10.5
10	6.5	5.0	6.0	6.5	5.5	6.0	8.5	7.0	7.5	13.0	8.0	10.5
11	6.5	5.0	6.0	6.5	5.5	6.0	8.0	5.5	6.5	12.5	8.5	10.5
12	5.5	4.5	5.0	7.0	6.0	6.0	8.5	4.5	6.5	12.0	9.0	10.5
13	6.0	5.0	5.5	6.5	5.5	6.0	9.5	5.5	7.5	13.0	8.5	11.0
14	5.5	4.0	5.0	6.0	5.0	5.5	10.5	6.5	8.5	12.5	9.0	11.0
15	5.5	5.0	5.0	6.0	4.5	5.5	10.5	6.5	8.5	13.5	10.0	11.5
16	5.5	4.5	5.0	7.0	5.0	6.0	11.0	6.5	8.5	13.0	10.0	11.5
17	6.0	5.0	5.5	6.5	5.5	6.0	9.0	7.0	8.0	12.0	8.0	10.0
18	5.5	4.5	5.0	5.5	4.5	5.0	7.0	5.5	6.0	12.5	8.5	10.5
19	5.0	3.5	4.5	6.0	4.0	5.0	8.5	4.5	6.5	11.5	7.0	9.5
20	5.5	3.5	4.5	5.5	3.5	4.5	9.5	5.5	7.5	12.5	7.0	9.5
21	5.5	4.5	5.0	6.5	4.5	5.5	11.5	7.0	9.0	12.5	7.5	10.0
22	5.0	3.5	4.0	7.0	4.0	5.5	11.5	8.0	9.5	13.0	8.0	10.5
23	4.5	3.5	4.0	6.5	5.5	6.0	11.5	7.5	9.5	13.0	9.0	11.0
24	4.5	3.0	4.0	7.5	5.0	6.0	11.0	7.0	9.0	10.5	9.0	10.0
25	4.5	2.5	3.5	7.5	4.5	6.0	11.0	6.5	9.0	10.0	9.0	9.0
26	4.5	2.5	3.5	7.5	5.0	6.5	12.0	7.5	9.5	9.0	8.5	8.5
27	5.5	4.0	4.5	7.0	4.0	5.5	11.5	8.0	9.5	9.5	8.5	9.0
28	5.5	3.5	4.5	7.5	3.5	5.5	10.0	8.0	9.0	12.5	7.5	10.0
29	---	---	---	8.0	4.5	6.0	10.0	7.5	9.0	12.0	8.0	10.5
30	---	---	---	9.0	5.0	6.5	9.0	7.5	8.5	11.5	10.0	10.0
31	---	---	---	9.5	5.5	7.5	---	---	---	11.0	8.5	9.5
MONTH	6.5	2.5	5.0	9.5	3.5	6.0	12.0	4.5	8.0	13.5	6.0	10.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	6.5	9.5	17.0	14.5	16.0	15.5	11.5	13.5	14.5	12.0	13.0
2	13.5	8.0	11.0	17.0	13.5	15.5	16.0	12.5	14.0	13.5	11.5	12.5
3	13.5	9.5	12.0	17.0	13.0	15.0	16.5	13.0	15.0	12.5	11.0	12.0
4	14.5	11.0	13.0	16.0	13.0	14.5	16.5	13.0	15.0	12.5	10.0	11.5
5	15.5	11.5	13.5	15.0	12.0	13.5	16.0	13.0	15.0	12.5	10.0	11.5
6	15.5	11.0	13.5	15.0	11.5	13.5	15.5	12.5	14.5	12.5	10.5	11.5
7	14.5	12.0	12.5	15.5	12.0	14.0	15.5	12.5	14.5	13.0	10.5	12.0
8	14.5	11.0	13.0	16.5	13.5	15.0	16.0	12.5	14.5	13.0	11.0	12.0
9	14.0	10.5	12.0	15.5	13.0	14.5	16.0	13.0	14.5	12.5	10.5	11.5
10	14.0	9.5	12.0	16.5	13.5	15.0	16.0	13.0	14.5	12.5	11.0	12.0
11	15.0	10.5	13.0	16.5	13.0	15.0	15.0	11.5	13.5	12.5	10.5	11.5
12	16.5	12.0	14.5	17.0	13.5	15.5	15.0	12.0	13.5	12.5	10.0	11.5
13	17.0	12.5	15.0	17.5	14.0	16.0	14.5	12.5	13.5	12.5	10.5	11.5
14	16.0	13.5	14.5	18.0	14.5	16.5	14.5	11.5	13.0	12.0	9.5	11.0
15	14.5	10.5	11.5	18.0	15.0	16.5	14.0	11.0	12.5	12.0	10.5	11.0
16	10.5	9.5	10.0	16.0	12.5	14.0	14.0	10.5	12.5	10.5	7.5	9.0
17	13.0	9.5	11.0	13.5	10.5	11.5	15.0	11.0	13.0	10.5	8.0	9.5
18	13.5	9.0	11.5	10.5	10.0	10.0	14.0	11.0	12.5	10.5	8.5	9.5
19	15.5	11.0	13.5	13.5	9.5	11.5	14.5	11.5	13.0	10.5	8.0	9.5
20	15.0	12.5	13.5	13.0	10.5	12.0	14.5	11.0	12.5	10.5	8.0	9.5
21	13.5	11.5	12.5	12.5	11.0	11.5	14.0	10.5	12.5	11.0	8.5	10.0
22	13.5	8.5	11.0	12.0	10.5	11.5	13.0	11.0	12.0	11.5	9.0	10.0
23	13.5	9.5	12.0	14.5	10.0	12.0	13.5	10.5	12.0	11.5	9.5	10.5
24	16.0	11.0	13.5	15.5	11.0	13.0	14.5	11.0	12.5	11.0	9.5	10.5
25	17.0	13.0	15.0	15.5	11.5	13.5	14.0	10.5	12.5	11.0	9.5	10.5
26	17.5	13.5	16.0	16.0	12.0	14.0	14.0	11.0	12.5	11.0	9.5	10.0
27	17.5	14.5	16.0	15.5	12.0	14.0	14.5	11.0	12.5	10.0	8.0	9.0
28	17.5	14.0	16.0	15.5	12.0	14.0	14.5	11.5	13.0	10.0	8.0	9.0
29	17.5	14.5	16.0	15.5	12.5	14.0	14.5	11.5	13.0	10.5	8.0	9.5
30	18.0	14.0	16.0	15.0	12.5	13.5	14.0	11.5	13.0	10.5	8.5	9.5
31	---	---	---	15.0	11.5	13.5	14.5	12.0	13.5	---	---	---
MONTH	18.0	6.5	13.0	18.0	9.5	14.0	16.5	10.5	13.5	14.5	7.5	10.5
YEAR	18.0	.0	8.5									

14335040 LOST CREEK LAKE NEAR MCLEOD, OR

LOCATION.--Lat 42°40'16", long 122°40'25", in SW 1/4 sec.26, T.33 S., R. 1 E., Jackson County, Hydrologic Unit 17100307, in outlet structure of Lost Creek Dam on Rogue River, 1.0 mi northeast of McLeod and at mile 157.2.

DRAINAGE AREA.--686 mi^2.

PERIOD OF RECORD.--February 1977 to current year.

REVISED RECORDS.--WDR OR-85-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 28, 1977, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam completed in October 1976. Storage began in February 1977. Total capacity, 465,000 acre-ft between elevations 1,551.0 ft and 1,872.0 ft, maximum pool elevation. Elevation of gated spillway crest, 1,823.0 ft. Usable storage, 315,000 acre-ft between elevation 1,751.0 ft and 1,872.0 ft. Water is used for flood control, recreation, power generation, pollution abatement, domestic use and other purposes.

COOPERATION.--Record is provided by Corps of Engineers, Lost Creek Control Center, and supplemented by Geological Survey. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 465,100 acre-ft May 21, 1979, May 25, 1981, elevation, 1,872.02 ft; minimum contents since first filling, 100,800 acre-ft Oct. 29, 1977, elevation, 1,720.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 465,000 acre-ft May 31, elevation, 1,872.01 ft; minimum contents, 251,700 acre-ft Sept. 30, elevation, 1,798.83 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

1,720	100,100	1,850	393,100
1,750	148.200	1,872	465,000
1,800	254,600	1,899	562,900

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1820.75	1819.87	1812.37	1813.71	1827.37	1849.17	1862.37	1871.36	1871.95	1861.80	1844.26	1817.33
2	1820.82	1819.52	1812.25	1814.38	1828.60	1849.71	1862.86	1871.12	1871.91	1861.23	1843.59	1816.09
3	1820.85	1819.04	1812.08	1815.07	1829.26	1850.26	1863.42	1870.86	1871.86	1860.67	1842.92	1814.83
4	1820.89	1818.33	1812.04	1815.66	1829.77	1850.87	1863.93	1870.69	1871.77	1860.04	1842.25	1813.53
5	1820.93	1817.57	1812.17	1816.13	1830.50	1851.72	1864.41	1870.63	1871.63	1859.45	1841.58	1812.23
6	1820.95	1816.77	1812.26	1816.54	1831.13	1852.75	1864.85	1870.63	1871.48	1858.85	1840.90	1810.91
7	1820.97	1816.13	1812.29	1816.87	1832.12	1853.59	1865.35	1870.72	1871.35	1858.24	1840.18	1809.61
8	1820.97	1815.54	1812.29	1817.15	1833.11	1854.39	1866.09	1870.88	1871.23	1857.63	1839.52	1808.30
9	1820.95	1814.85	1812.26	1817.41	1834.08	1855.02	1866.94	1871.12	1871.09	1857.00	1838.82	1807.11
10	1820.92	1814.30	1812.20	1817.71	1835.02	1855.41	1867.64	1871.32	1870.93	1856.37	1838.11	1806.22
11	1820.85	1813.61	1812.12	1817.96	1836.09	1855.85	1868.33	1871.43	1870.65	1855.76	1837.41	1805.52
12	1820.80	1813.08	1812.09	1818.23	1837.15	1856.39	1868.90	1871.49	1870.29	1855.13	1836.69	1804.94
13	1820.72	1812.85	1812.15	1818.48	1838.73	1856.80	1869.41	1871.55	1869.90	1854.50	1835.97	1804.49
14	1820.64	1812.80	1812.23	1818.73	1839.80	1856.98	1869.94	1871.61	1869.53	1853.84	1835.26	1804.07
15	1820.55	1812.71	1812.25	1818.86	1840.68	1857.00	1870.53	1871.75	1869.15	1853.16	1834.52	1803.70
16	1820.49	1812.60	1812.25	1818.95	1841.36	1857.20	1870.90	1871.84	1868.79	1852.50	1833.79	1803.41
17	1820.45	1812.50	1812.24	1819.14	1842.09	1857.88	1871.03	1871.88	1868.40	1851.99	1833.04	1803.09
18	1820.38	1812.42	1812.24	1819.33	1842.80	1858.41	1871.10	1871.90	1868.01	1851.74	1832.28	1802.77
19	1820.31	1812.51	1812.26	1819.49	1843.41	1858.53	1871.05	1871.91	1867.61	1851.40	1831.52	1802.45
20	1820.24	1812.58	1812.24	1819.62	1843.96	1858.64	1870.98	1871.91	1867.21	1850.84	1830.72	1802.13
21	1820.15	1813.29	1812.20	1819.76	1844.45	1858.74	1871.00	1871.90	1866.82	1850.30	1829.70	1801.81
22	1820.05	1813.90	1812.25	1819.96	1844.91	1858.77	1871.10	1871.85	1866.42	1850.13	1828.68	1801.49
23	1819.96	1814.08	1812.36	1820.39	1845.49	1859.06	1871.15	1871.87	1866.00	1849.69	1827.64	1801.18
24	1819.87	1813.78	1812.45	1821.07	1846.18	1859.48	1871.19	1871.84	1865.56	1849.18	1826.64	1800.83
25	1819.77	1813.17	1812.51	1822.49	1846.83	1859.80	1871.21	1871.85	1865.11	1848.62	1825.56	1800.51
26	1819.70	1812.47	1812.58	1824.20	1847.45	1860.24	1871.21	1871.93	1864.58	1848.03	1824.50	1800.20
27	1819.80	1811.84	1812.62	1824.96	1848.05	1860.63	1871.31	1872.00	1864.03	1847.42	1823.44	1799.86
28	1819.80	1811.88	1812.64	1825.25	1848.61	1860.98	1871.50	1872.00	1863.47	1846.81	1822.26	1799.54
29	1819.87	1812.11	1812.69	1825.23	---	1861.31	1871.55	1871.97	1862.92	1846.18	1821.02	1799.20
30	1820.20	1812.32	1812.75	1825.50	---	1861.63	1871.48	1872.00	1862.36	1845.54	1819.80	1798.83
31	1820.04	---	1812.97	1826.11	---	1861.98	---	1872.00	---	1844.91	1818.57	---
MAX	1820.97	1819.87	1812.97	1826.11	1848.61	1861.98	1871.55	1872.00	1871.95	1861.80	1844.26	1817.33
MIN	1819.70	1811.84	1812.04	1813.71	1827.37	1849.17	1862.37	1870.63	1862.36	1844.91	1818.57	1798.83
(†)	306300	285800	287500	322900	388800	431400	463200	465000	432600	377500	302400	251700
(‡)	-1700	-20500	+1700	+35400	+65900	+42600	+31800	+1800	-32400	-55100	-75100	-50700

CAL YR 1986 MAX 1871.53 MIN 1811.84 AC-FT‡ -4800
WTR YR 1987 MAX 1872.00 MIN 1798.83 AC-FT‡ -56300

† Contents in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14335075 ROGUE RIVER AT MCLEOD, OR

LOCATION.--Lat 42°39'35", long 122°41'30", in SW 1/4 NW 1/4 sec.34, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.3 mi upstream from Big Butte Creek, 0.1 southwest of McLeod, and at mile 155.6.

DRAINAGE AREA.--689 mi^2.

PERIOD OF RECORD.--May 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to September 1981.
pH: November 1976 to September 1981.
WATER TEMPERATURE: November 1976 to current year.
DISSOLVED OXYGEN: November 1976 to September 1981.
SUSPENDED SEDIMENT DISCHARGE: October 1976 to September 1981 (October to April only, 1980 water year, November to April only, 1981 water year).

INSTRUMENTATION.--Water-quality monitor since November 1976. Automatic pumping sediment sampler November 1976 to April 1981.

REMARKS.--Water-discharge records, obtained by subtracting Big Butte Creek near McLeod (station 14337500) from Rogue River near McLeod (station 14337600), are used for computation of daily sediment loads.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 76 microsiemens Nov. 11, 1977; minimum, 45 microsiemens Dec. 24, 25, 1977.
pH: Maximum, 9.2 units May 8, 9, 11, 12, 1981; minimum, 6.7 units Nov. 8-13, 1978.
WATER TEMPERATURE: Maximum, 15.5°C June 23, 1985; minimum, 0.5°C Jan. 9, 1977; minimum since full operation of Lost Creek Lake, 3.5°C Feb. 1-9, 15, 1979, Feb. 26, 27, 1985, but may have been lower during period of missing record Feb. 1-20, 1985.
DISSOLVED OXYGEN: Maximum, 15.7 mg/L Jan. 8, 1977; minimum, 6.8 mg/L Aug. 20, 1977.
SEDIMENT CONCENTRATION: Maximum recorded daily mean, 75 mg/L Dec. 14, 1977; minimum daily, 0 mg/L many days.
SEDIMENT DISCHARGE: Maximum recorded daily, 1,570 tons Dec. 14, 1977; minimum daily, 0 tons many days.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 13.5°C Aug. 2, 17-19; minimum recorded, 4.0°C Jan. 19, 21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.0	6.0	6.5	7.0	6.5	7.0	6.5	6.5	6.5	5.5	5.5	5.5
2	7.0	6.0	6.5	7.5	6.5	7.0	6.5	6.5	6.5	5.5	5.0	5.0
3	7.0	6.5	6.5	7.0	6.5	7.0	6.5	6.5	6.5	5.5	5.0	5.5
4	7.0	6.5	6.5	7.0	7.0	7.0	6.5	6.0	6.5	5.5	5.0	5.0
5	7.5	6.5	7.0	7.0	6.5	7.0	6.5	6.5	6.5	5.5	5.0	5.0
6	7.5	6.5	7.0	7.0	7.0	7.0	6.5	6.0	6.5	5.5	5.0	5.0
7	7.5	6.5	7.0	7.5	7.0	7.0	6.5	6.0	6.0	5.0	5.0	5.0
8	7.5	6.5	7.0	7.5	7.0	7.0	6.5	6.0	6.0	5.0	4.5	5.0
9	7.5	6.5	7.0	7.5	7.0	7.0	6.5	6.0	6.0	5.0	4.5	5.0
10	7.5	6.5	7.0	7.5	7.0	7.5	6.0	6.0	6.0	5.0	4.5	5.0
11	7.5	6.0	7.0	7.5	7.0	7.0	6.0	6.0	6.0	5.0	4.5	5.0
12	7.5	6.5	7.0	7.5	7.0	7.0	6.0	6.0	6.0	5.0	4.5	5.0
13	7.0	6.5	7.0	7.5	7.0	7.0	6.0	6.0	6.0	5.0	4.5	5.0
14	7.5	6.5	7.0	7.0	7.0	7.0	6.0	5.5	6.0	5.0	4.5	4.5
15	7.5	6.5	7.0	7.0	7.0	7.0	6.0	5.5	5.5	5.0	4.5	4.5
16	7.5	6.5	7.0	7.0	7.0	7.0	6.0	5.5	5.5	5.0	4.5	4.5
17	7.5	6.5	7.0	7.0	7.0	7.0	6.0	5.5	5.5	5.0	4.5	4.5
18	7.5	7.0	7.0	7.0	7.0	7.0	6.0	5.5	5.5	5.0	4.5	4.5
19	7.5	6.5	7.0	7.0	7.0	7.0	6.0	5.5	5.5	5.0	4.0	4.5
20	8.0	7.0	7.0	7.0	7.0	7.0	6.0	5.5	5.5	5.0	4.5	4.5
21	8.0	7.0	7.0	7.0	7.0	7.0	6.0	5.5	5.5	4.5	4.0	---
22	8.0	7.0	7.5	7.0	7.0	7.0	6.0	5.5	5.5	---	---	---
23	7.5	7.0	7.5	7.0	7.0	7.0	6.0	5.5	5.5	---	---	---
24	7.5	7.0	7.5	7.0	7.0	7.0	5.5	5.5	5.5	---	---	---
25	8.0	7.0	7.5	7.0	7.0	7.0	5.5	5.5	5.5	---	---	---
26	8.0	7.0	7.5	7.0	7.0	7.0	6.0	5.5	5.5	---	---	---
27	8.0	7.0	7.5	7.0	7.0	7.0	5.5	5.5	5.5	---	---	---
28	7.5	7.0	7.5	7.0	6.5	7.0	5.5	5.5	5.5	---	---	---
29	7.5	7.0	7.5	7.0	6.5	6.5	5.5	5.5	5.5	---	---	---
30	7.5	6.5	7.0	7.0	6.5	6.5	5.5	5.0	5.5	---	---	---
31	7.0	6.5	7.0	---	---	---	5.5	5.5	5.5	---	---	---
MONTH	8.0	6.0	7.0	7.5	6.5	7.0	6.5	5.0	6.0	---	---	---

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	6.0	5.0	5.0	8.0	7.0	7.5
2				---	---	---	6.0	5.0	5.0	8.0	7.0	7.5
3				---	---	---	5.5	5.0	5.0	8.0	7.5	7.5
4				---	---	---	6.0	5.0	5.5	8.5	7.5	8.0
5				---	---	---	6.0	5.0	5.5	8.5	7.5	8.0
6				---	---	---	6.0	5.0	5.5	8.5	7.5	8.5
7				---	---	---	6.5	5.5	6.0	9.0	8.0	8.5
8				---	---	---	---	5.5	---	9.0	8.0	8.5
9				---	---	---	---	---	---	9.0	7.5	8.0
10				---	---	---	---	5.5	---	9.0	8.0	8.5
11				---	---	---	6.0	5.0	5.5	9.0	7.5	8.5
12				---	---	---	6.5	5.5	5.5	9.0	8.0	8.5
13				---	---	---	6.5	5.5	6.0	9.0	8.0	8.5
14				---	---	---	7.0	6.0	6.0	9.0	8.0	8.5
15				---	---	---	7.0	6.0	6.5	9.0	8.0	8.5
16				---	---	---	6.5	6.0	6.0	9.0	8.0	8.5
17				---	---	---	6.5	5.5	6.0	9.0	8.0	8.5
18				---	---	---	6.5	5.5	6.0	9.5	8.0	8.5
19				5.0	---	---	6.5	5.5	6.0	9.5	8.0	8.5
20				5.0	4.5	4.5	7.5	6.0	6.5	9.0	6.5	8.0
21				5.0	4.5	4.5	7.5	7.0	7.0	9.5	6.5	8.5
22				5.0	4.5	4.5	7.5	6.5	7.0	9.5	8.5	9.0
23				5.0	4.5	5.0	7.5	7.0	7.5	9.5	8.0	9.0
24				5.5	4.5	5.0	7.5	6.5	7.5	9.5	8.0	9.0
25				5.5	4.5	5.0	8.0	7.0	7.5	9.5	8.5	9.0
26				5.5	4.5	5.0	8.0	7.0	7.5	9.0	8.5	9.0
27				5.5	4.5	5.0	8.0	6.5	7.5	9.0	8.5	9.0
28				5.5	4.5	5.0	8.0	7.5	8.0	9.5	8.0	9.0
29				5.5	4.5	5.0	8.0	7.0	7.5	9.5	8.0	9.0
30				5.5	4.5	5.0	8.0	6.5	7.5	9.0	8.5	9.0
31				5.5	5.0	5.0	---	---	---	9.5	8.5	9.0
MONTH				---	---	---	---	---	---	9.5	6.5	8.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.5	8.5	9.0	9.5	8.5	9.0	11.5	10.5	11.0	12.5	11.0	12.0
2	10.0	8.5	9.0	9.5	8.5	9.0	13.5	11.0	11.5	11.5	11.0	11.5
3	10.0	9.0	9.5	9.5	8.0	9.0	12.0	11.0	11.5	11.5	11.0	11.5
4	10.0	9.0	9.5	9.5	8.5	9.0	12.0	11.5	11.5	12.0	10.5	11.5
5	10.5	8.5	9.5	9.5	8.0	9.0	12.5	11.5	12.0	11.5	10.5	11.0
6	10.0	8.5	9.0	9.0	7.5	8.5	12.5	11.5	12.0	11.5	11.0	11.0
7	9.0	8.0	8.5	8.5	7.5	8.0	12.5	11.5	12.0	11.5	11.0	11.5
8	9.5	8.5	9.0	8.5	7.5	8.0	12.5	12.0	12.0	11.5	9.5	10.5
9	9.5	8.5	9.0	8.5	8.0	8.5	13.0	12.0	12.5	10.5	9.5	10.0
10	9.5	8.5	9.0	9.0	8.0	8.5	13.0	12.0	12.5	10.5	9.5	10.5
11	9.5	8.5	9.0	9.0	8.0	8.5	13.0	12.0	12.5	11.0	9.5	10.5
12	9.5	8.5	9.0	9.0	8.0	8.5	13.0	12.0	12.5	11.0	9.5	10.5
13	10.0	8.5	9.5	9.0	8.0	8.5	13.0	12.0	12.5	11.5	10.0	11.0
14	10.0	9.0	9.5	10.0	8.5	9.0	13.0	12.5	12.5	11.0	6.5	8.5
15	9.5	9.0	9.0	10.5	9.5	10.0	13.0	12.5	12.5	7.5	6.5	7.0
16	9.5	9.0	9.0	10.5	9.5	10.0	13.0	12.5	12.5	7.5	6.5	7.0
17	10.0	9.0	9.5	10.5	10.0	10.0	13.5	12.5	13.0	7.0	6.5	7.0
18	9.5	8.0	8.5	10.0	9.5	10.0	13.5	12.5	13.0	7.5	6.5	6.5
19	9.0	7.5	8.0	10.5	10.0	10.0	13.5	12.5	13.0	7.0	6.5	6.5
20	8.5	7.5	8.0	10.5	10.0	10.0	13.0	11.5	12.0	7.0	6.5	6.5
21	8.5	7.5	8.0	10.5	9.5	10.0	12.0	11.5	12.0	7.5	6.5	7.0
22	8.5	7.5	8.0	10.5	10.0	10.5	12.0	11.5	12.0	7.5	6.5	7.0
23	9.0	7.5	8.5	10.5	10.0	10.5	12.5	11.5	12.0	7.0	6.0	6.5
24	9.0	7.5	8.5	10.5	9.5	10.5	12.5	12.0	12.0	6.5	6.0	6.5
25	9.0	8.0	8.5	11.0	10.0	10.5	12.5	12.0	12.5	6.5	6.0	6.5
26	9.5	8.0	8.5	10.5	9.5	10.0	12.5	12.0	12.5	6.5	6.0	6.0
27	9.0	8.5	9.0	10.5	10.0	10.5	13.0	12.0	12.5	6.5	6.0	6.0
28	9.0	8.0	9.0	11.0	10.0	10.5	13.0	11.5	12.5	7.0	6.0	6.5
29	9.5	8.0	9.0	11.0	10.0	10.5	12.0	11.5	12.0	6.5	6.0	6.0
30	9.5	8.0	9.0	11.0	10.5	10.5	12.5	11.5	12.0	7.0	6.0	6.5
31	---	---	---	11.0	10.5	11.0	12.5	12.5	12.5	---	---	---
MONTH	10.5	7.5	9.0	11.0	7.5	9.5	13.5	10.5	12.0	12.5	6.0	8.5

14335200 SOUTH FORK BIG BUTTE CREEK ABOVE WILLOW CREEK, NEAR BUTTE FALLS, OR

LOCATION.--Lat 42°31'15", long 122°29'05", in SE 1/4 sec.17, T.35 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank about 200 ft upstream from Willow Creek, 4.0 mi east of town of Butte Falls, and at mile 18.4.

DRAINAGE AREA.--67.6 mi^2.

PERIOD OF RECORD.--October 1985 to current year. Records prior to Oct. 1, 1978 published by the Oregon State Water Resources Department. Records for Oct. 1, 1978 to Sept. 30, 1985 available at the Oregon Water Resources Department, Salem, OR.

GAGE.--Water-stage recorder. May 1935 to October 1949, nonrecording gage and October 1949 to December 1964, water-stage recorder at different datum.

AVERAGE DISCHARGE.--50 years (1936-50, 1952-64, 1966-87), 80.4 ft^3/s, 58,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,560 ft^3/s Mar. 3, 1972, gage height, 7.03 ft; minimum observed discharge, 22 ft^3/s Dec. 3, 1955, Oct. 1-4, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 22	0500	*137	*3.09				

Minimum discharge, 23 ft^3/s July 13, Sept. 14, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	49	56	76	98	57	68	62	42	32	33	28
2	46	46	54	69	111	57	68	57	40	31	31	28
3	45	45	53	74	98	57	71	55	39	30	29	29
4	45	44	54	66	86	58	68	53	36	30	28	29
5	45	44	54	63	79	59	66	52	34	31	28	28
6	44	44	54	58	75	62	65	49	37	30	29	28
7	43	56	51	54	72	59	64	49	34	30	30	27
8	44	52	50	51	69	59	64	48	35	30	30	27
9	42	57	49	51	67	59	63	46	35	30	29	28
10	42	56	48	50	66	57	65	45	37	30	29	28
11	41	50	48	50	69	60	67	45	37	30	29	27
12	41	49	48	51	65	63	64	45	36	28	29	27
13	41	47	50	50	77	67	62	44	35	26	29	25
14	41	47	50	49	88	75	60	42	35	26	30	25
15	42	46	47	42	78	71	59	43	38	27	29	25
16	42	45	46	39	77	68	59	43	40	29	29	27
17	44	45	45	44	77	79	62	42	39	51	29	28
18	44	47	45	46	77	97	64	41	37	74	29	28
19	42	49	46	43	73	91	59	40	35	56	28	27
20	42	52	45	43	70	85	58	40	35	42	26	27
21	42	72	44	43	71	83	56	40	36	44	27	27
22	41	98	49	44	68	79	55	39	36	83	28	27
23	41	72	47	46	71	89	55	39	34	55	28	26
24	41	65	48	62	67	81	54	41	33	45	28	27
25	41	62	46	79	64	79	54	48	33	40	28	27
26	46	58	46	75	61	77	53	46	32	39	28	27
27	58	56	45	77	60	75	50	44	33	37	28	26
28	47	71	45	87	58	73	50	43	33	36	27	25
29	53	66	46	79	---	71	49	42	33	36	28	25
30	72	59	45	78	---	69	50	43	33	35	27	25
31	54	---	46	73	---	69	---	50	---	34	28	---
TOTAL	1400	1649	1500	1812	2092	2185	1802	1416	1072	1177	888	808
MEAN	45.2	55.0	48.4	58.5	74.7	70.5	60.1	45.7	35.7	38.0	28.6	26.9
MAX	72	98	56	87	111	97	71	62	42	83	33	29
MIN	41	44	44	39	58	57	49	39	32	26	26	25
AC-FT	2780	3270	2980	3590	4150	4330	3570	2810	2130	2330	1760	1600

CAL YR 1986 TOTAL 27752 MEAN 76.0 MAX 596 MIN 36 AC-FT 55050
WTR YR 1987 TOTAL 17801 MEAN 48.8 MAX 111 MIN 25 AC-FT 35310

14335500 SOUTH FORK BIG BUTTE CREEK NEAR BUTTE FALLS, OR

LOCATION.--Lat 42°32'25", long 122°33'15", in NE 1/4 SW 1/4 sec.11, T.35 S., R.2 E., Jackson County, Hydrologic Unit 17100307, on right bank 10 ft downstream from Ginger Creek, 0.6 mi east of town of Butte Falls, and at mile 14.0.

DRAINAGE AREA.--138 mi^2.

PERIOD OF RECORD.--September 1910 to October 1911 (published as "at Butte Falls"), August to October 1915, October 1917 to September 1922, March 1925 to current year. Monthly discharge only August, September 1915, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1911, 1918-19, 1921-22, 1929. WSP 1318: 1918-19. WSP 1738: Drainage area. WDR OR-86-2: 1984(P,M), 1985(P,M).

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1968. Elevation of gage is 2,360 ft, from river-profile map. Sept. 21, 1910, to Sept. 30, 1922, nonrecording gage at site 300 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 14 to Feb. 5, May 17 to June 10. Records good except for estimated daily discharges, which are fair. Flow slightly regulated since 1952 by Willow Creek Reservoir, capacity, 7,320 acre-ft. Diversions for irrigation upstream from station and for municipal water supply for Medford (since 1927) and Butte Falls.

AVERAGE DISCHARGE.--68 years (water years 1911, 1918-22, 1926-87), 154 ft^3/s, 111,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft^3/s Dec. 22, 1964, gage height, 7.65 ft, from rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 29 ft^3/s Sept. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 13	2100	a*254	*1.60				

Minimum discharge, 34 ft^3/s Sept. 28.

a Maximum recorded. Discharge may have been higher Feb. 1 or 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	80	95	115	170	113	136	103	100	72	69	61
2	75	77	92	110	200	112	131	98	90	71	67	62
3	74	75	90	115	190	113	134	95	85	70	66	62
4	73	75	90	110	170	116	128	93	80	71	64	62
5	73	73	90	100	151	110	123	91	75	71	62	62
6	72	84	88	95	142	107	118	87	80	71	62	61
7	71	89	86	90	132	108	115	93	75	70	63	60
8	71	86	85	85	126	111	114	93	77	70	63	61
9	71	83	84	85	120	112	110	91	79	69	63	62
10	71	80	82	85	116	111	111	89	80	70	62	62
11	69	79	80	85	125	110	116	89	80	69	63	62
12	69	78	82	84	114	119	110	90	79	67	63	61
13	69	79	84	82	158	128	105	89	78	65	64	60
14	69	78	82	80	181	146	103	89	77	67	64	60
15	69	78	80	75	165	150	101	89	80	68	64	60
16	70	77	78	70	169	148	99	90	82	69	64	60
17	72	76	77	73	175	166	101	90	80	91	64	60
18	72	75	76	76	174	222	107	88	78	121	64	61
19	71	80	76	73	162	223	100	86	76	97	63	61
20	71	90	76	70	155	205	96	84	76	82	61	60
21	70	120	77	65	155	191	94	83	77	79	62	61
22	70	150	80	65	147	178	92	82	77	126	62	61
23	70	120	79	70	149	201	91	82	76	93	62	61
24	70	110	78	100	141	195	89	90	75	82	62	59
25	69	105	77	130	131	186	87	100	74	77	62	42
26	86	100	77	120	124	176	86	95	74	74	62	42
27	82	95	76	130	119	166	83	90	73	72	63	41
28	74	115	75	140	115	159	82	88	74	71	61	40
29	106	110	75	130	---	152	82	88	73	71	61	40
30	102	100	75	125	---	145	86	95	73	71	61	39
31	85	---	90	140	---	140	---	110	---	69	61	---
TOTAL	2313	2717	2532	2973	4176	4619	3130	2820	2353	2386	1954	1706
MEAN	74.6	90.6	81.7	95.9	149	149	104	91.0	78.4	77.0	63.0	56.9
MAX	106	150	95	140	200	223	136	110	100	126	69	62
MIN	69	73	75	65	114	107	82	82	73	65	61	39
AC-FT	4590	5390	5020	5900	8280	9160	6210	5590	4670	4730	3880	3380

CAL YR 1986 TOTAL 51887 MEAN 142 MAX 1300 MIN 69 AC-FT 102900
WTR YR 1987 TOTAL 33679 MEAN 92.3 MAX 223 MIN 39 AC-FT 66800

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR

LOCATION.--Lat 42°39'05", long 122°41'25", in NE 1/4 NW 1/4 sec.3, T.34 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 225 ft upstream from county road bridge, 0.9 mi south of McLeod, and at mile 0.64.

DRAINAGE AREA.--245 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to September 1957. October 1967 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,525.95 ft above National Geodetic Vertical Datum of 1929. Oct. 9, 1945, to Sept. 30, 1957, nonrecording gage at site 260 ft downstream at datum 0.53 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Slight regulation by fish hatchery 600 ft upstream from station. Several diversions in the vicinity of Butte Falls, the two largest being the city of Medford diversion and Eagle Point Irrigation District Canal.

AVERAGE DISCHARGE.--32 years, 278 ft^3/s, 201,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,950 ft^3/s Dec. 22, 1955, gage height, 12.75 ft, site and datum then in use, from rating curve extended above 3,300 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 6.4 ft^3/s June 23, 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 18.6 ft, present site, from floodmark by local resident, discharge, 16,800 ft^3/s, from rating curve, at former site, extended above 9,000 ft^3/s and field estimate of overflow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maxinum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 1	1600	*1,690	*6.42				

Minimum discharge, 42 ft^3/s several days in August and September.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	72	166	500	848	161	189	92	75	55	53	42
2	61	63	147	401	932	157	181	90	71	63	54	43
3	77	58	133	473	603	153	186	84	69	52	53	45
4	153	56	124	327	459	158	177	79	67	53	51	44
5	150	56	130	254	371	191	164	79	65	54	50	44
6	146	56	129	202	315	165	155	78	64	52	45	44
7	145	93	114	167	278	145	147	74	65	51	47	44
8	145	99	104	142	248	149	142	75	65	50	50	43
9	144	94	98	130	224	158	134	72	63	50	49	46
10	143	97	92	120	204	146	134	69	63	48	44	46
11	143	79	90	113	252	149	151	69	63	48	45	46
12	141	72	90	113	217	198	140	68	63	47	47	46
13	139	69	102	116	511	291	124	68	62	45	48	46
14	113	68	115	112	539	429	111	68	61	46	49	44
15	53	67	96	96	401	414	104	74	64	47	50	45
16	53	63	88	83	368	371	100	69	68	48	47	46
17	77	61	87	85	361	436	99	69	68	57	46	43
18	116	63	85	85	335	594	115	67	61	157	44	45
19	53	74	90	82	301	578	103	67	58	121	45	46
20	79	74	89	79	276	517	95	68	57	80	44	47
21	51	194	83	79	269	469	97	67	57	67	46	46
22	50	535	109	82	249	428	87	66	58	174	43	46
23	49	280	114	92	265	468	83	67	56	113	43	48
24	49	208	111	459	244	371	81	72	55	80	44	47
25	49	197	105	734	214	333	78	75	55	68	44	74
26	50	158	100	537	194	307	76	73	53	65	46	118
27	75	153	93	511	181	280	74	71	53	62	44	119
28	60	452	88	591	168	255	72	70	53	61	44	119
29	68	303	91	408	---	237	74	70	52	62	43	120
30	149	203	87	370	---	215	77	71	52	61	44	123
31	99	---	90	327	---	201	---	95	---	59	43	---
TOTAL	2944	4117	3240	7870	9827	9124	3550	2276	1836	2096	1445	1755
MEAN	95.0	137	105	254	351	294	118	73.4	61.2	67.6	46.6	58.5
MAX	153	535	166	734	932	594	189	95	75	174	54	123
MIN	49	56	83	79	168	145	72	66	52	45	43	42
AC-FT	5840	8170	6430	15610	19490	18100	7040	4510	3640	4160	2870	3480

CAL YR 1986 TOTAL 73386 MEAN 201 MAX 2980 MIN 49 AC-FT 145600
WTR YR 1987 TOTAL 50080 MEAN 137 MAX 932 MIN 42 AC-FT 99330

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1970 to current year.

INSTRUMENTATION.--Temperature recorder since August 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 24.0°C at times in 1973, 1977, 1979-81; minimum, 0.0°C at times in 1971, 1972, 1977-80, 1987.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 23.5°C July 14; minimum, 0.0°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.5	8.5	10.0	9.0	6.5	8.0	5.0	3.5	4.0	5.5	5.0	5.5
2	11.5	7.0	9.0	9.0	6.0	7.5	4.5	3.5	4.0	5.0	4.0	4.5
3	12.0	8.0	9.5	8.5	6.0	7.0	5.0	3.5	4.5	6.0	4.5	5.5
4	11.5	8.0	9.5	9.0	6.0	7.5	6.0	4.0	5.0	5.5	4.5	5.0
5	12.0	8.5	10.0	8.0	6.0	7.0	6.5	5.5	6.0	5.5	4.5	5.0
6	12.0	9.0	10.0	8.0	6.0	7.0	7.5	5.5	6.5	4.5	3.0	3.5
7	12.5	9.0	10.5	8.0	6.5	7.0	5.5	4.0	4.5	3.0	1.5	2.5
8	12.0	9.0	10.5	8.0	6.0	7.0	4.5	3.5	4.0	3.0	1.0	2.0
9	12.0	9.0	10.0	8.5	7.0	8.0	4.0	3.0	3.5	3.5	1.5	2.5
10	12.0	9.0	10.0	8.5	7.0	7.5	4.0	2.0	3.0	4.0	2.0	3.0
11	11.0	8.0	9.5	7.5	5.5	6.5	4.0	2.5	3.5	4.0	2.0	3.0
12	10.0	7.0	8.5	7.0	5.5	6.5	5.5	4.0	5.0	4.5	3.0	3.5
13	10.0	6.5	8.0	7.5	5.5	6.5	5.5	5.0	5.0	5.0	3.5	4.0
14	10.0	7.0	8.0	8.0	6.5	7.0	5.5	4.5	5.0	4.5	3.0	3.5
15	10.5	6.5	8.5	8.0	7.0	7.5	4.5	3.5	4.0	3.0	1.0	2.0
16	10.0	7.0	8.5	8.0	6.5	7.5	5.0	3.5	4.0	2.0	.0	1.0
17	10.0	9.0	9.5	9.0	7.0	8.0	4.0	2.5	3.5	2.5	.5	1.5
18	10.5	8.5	9.5	7.0	6.0	6.5	5.0	3.0	4.0	3.5	1.5	2.0
19	10.5	7.0	8.5	8.0	7.0	7.5	5.5	4.5	5.0	3.0	1.0	2.0
20	10.0	7.0	8.5	8.5	7.0	8.0	4.5	3.5	4.0	3.5	1.0	2.0
21	10.5	7.0	8.5	8.5	7.5	8.0	5.0	3.5	4.0	3.5	1.5	2.5
22	10.5	7.0	9.0	8.0	7.0	7.5	6.0	4.5	5.5	4.0	3.0	3.5
23	9.0	7.5	8.5	8.5	7.0	7.5	6.5	5.0	6.0	5.5	4.0	4.5
24	10.0	8.0	9.0	7.0	6.0	6.5	6.0	5.0	5.5	4.0	1.5	2.5
25	12.5	9.0	10.5	6.5	5.5	6.0	5.5	4.5	5.0	5.0	3.0	4.0
26	11.5	9.5	10.5	6.5	6.0	6.0	6.5	5.0	5.5	6.0	4.5	5.0
27	12.0	9.5	10.5	7.5	6.5	7.0	5.0	3.5	4.0	6.5	4.5	5.5
28	9.5	7.5	8.5	7.5	5.5	6.5	4.0	2.5	3.5	6.0	4.0	5.0
29	9.0	7.5	8.0	6.5	5.5	6.0	6.0	4.0	5.0	6.0	5.0	5.5
30	10.0	8.5	9.0	5.5	4.5	5.0	4.5	3.0	3.5	6.0	5.0	5.5
31	11.0	8.5	9.5	---	---	---	6.0	4.0	5.0	6.0	4.5	5.0
MONTH	12.5	6.5	9.5	9.0	4.5	7.0	7.5	2.0	4.5	6.5	.0	3.5

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	5.5	6.5	4.5	6.0	13.0	8.0	10.5	13.5	10.5	11.5
2	7.0	5.5	6.0	7.5	6.0	6.5	12.5	8.5	10.5	11.0	9.5	10.0
3	7.0	6.0	6.5	9.0	7.5	8.0	10.5	9.0	9.5	16.5	10.0	13.0
4	6.5	4.5	5.5	10.0	8.0	8.5	12.0	8.5	10.0	17.5	11.5	14.5
5	6.5	4.5	5.5	9.0	8.0	8.5	11.5	8.0	9.5	18.5	12.5	15.5
6	6.5	4.5	5.5	9.0	7.0	8.0	10.0	7.0	9.0	19.5	13.5	16.0
7	6.5	4.5	5.5	8.5	5.0	6.5	13.0	9.0	11.0	19.5	14.0	16.5
8	7.5	5.5	6.5	8.5	6.5	7.5	13.5	10.0	11.5	19.0	14.0	16.5
9	7.5	5.5	7.0	9.0	7.0	8.0	13.0	8.0	10.5	19.5	14.0	16.5
10	8.5	6.0	7.5	8.5	7.0	7.5	11.0	9.0	10.0	19.0	13.0	16.0
11	8.5	6.5	7.5	8.0	7.0	7.5	11.0	7.5	9.0	18.0	13.5	16.0
12	7.0	5.5	6.0	9.0	7.5	8.0	12.0	7.0	9.0	18.0	14.0	16.0
13	7.0	6.0	6.5	8.5	7.0	8.0	13.0	7.0	10.0	19.0	13.0	16.0
14	6.5	5.0	6.0	8.0	6.5	7.5	14.5	9.0	11.5	18.0	14.0	16.0
15	7.0	6.0	6.5	7.5	5.5	6.5	14.5	9.0	12.0	18.0	14.0	16.0
16	6.5	5.5	6.0	8.5	6.5	7.5	15.0	9.5	12.5	18.0	13.5	15.5
17	7.5	6.0	6.5	8.0	6.5	7.5	13.0	10.5	12.0	16.5	11.0	14.0
18	7.0	5.5	6.5	6.5	5.5	6.0	11.5	8.0	10.0	17.0	11.5	14.0
19	6.0	4.5	5.5	7.0	4.5	5.5	12.5	6.5	9.5	15.5	10.0	13.0
20	6.5	4.0	5.0	6.5	4.5	5.5	13.5	7.5	10.5	16.0	10.0	13.0
21	7.0	5.0	6.0	7.5	5.5	6.5	16.0	9.5	12.5	16.5	10.5	13.5
22	5.5	3.5	4.5	8.0	5.0	6.5	16.0	11.5	13.5	17.0	11.0	14.0
23	5.5	4.0	4.5	8.5	7.0	8.0	16.5	11.5	14.0	17.0	12.0	14.5
24	6.0	3.5	4.5	9.0	5.5	7.5	16.0	10.5	13.5	15.5	12.5	13.5
25	5.5	2.5	4.0	9.0	5.5	7.5	16.0	10.0	13.0	12.5	11.0	12.0
26	5.5	2.5	4.0	10.0	6.5	8.0	17.5	11.5	14.5	12.5	10.0	11.5
27	7.5	4.5	5.5	9.0	5.0	7.0	18.5	12.5	15.5	12.0	9.5	11.0
28	7.0	4.0	5.5	9.5	5.0	7.0	16.0	14.0	15.0	16.0	9.5	12.5
29	---	---	---	10.0	5.5	8.0	15.5	12.0	13.5	17.0	11.5	14.0
30	---	---	---	11.0	6.0	8.5	13.5	12.0	12.5	14.5	11.5	12.5
31	---	---	---	12.0	7.5	9.5	---	---	---	14.5	11.0	12.5
MONTH	8.5	2.5	6.0	12.0	4.5	7.5	18.5	6.5	11.5	19.5	9.5	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	10.0	13.0	21.5	17.5	19.5	20.0	13.5	16.5	19.0	15.0	17.0
2	18.5	11.5	15.0	20.5	16.0	18.5	20.5	14.0	17.5	17.0	14.0	15.5
3	19.5	13.5	16.5	21.5	15.5	18.5	21.5	15.0	18.0	16.0	12.5	14.5
4	20.0	14.5	17.0	20.0	15.5	17.5	21.5	15.5	18.5	16.5	11.5	14.0
5	19.5	14.5	17.0	19.0	14.0	16.5	20.5	15.0	17.5	17.0	12.0	14.5
6	19.5	13.5	16.5	19.5	13.5	16.5	20.5	14.0	17.0	16.5	12.5	14.5
7	16.5	14.5	15.0	20.0	14.0	17.0	21.0	14.5	17.5	16.5	12.0	14.0
8	19.5	13.5	16.5	21.5	15.5	18.0	21.0	15.0	18.0	15.5	12.5	14.0
9	18.0	14.5	16.0	19.5	15.0	17.0	21.0	15.0	18.0	16.0	12.0	14.0
10	18.5	12.0	15.0	21.0	15.0	18.0	20.5	15.0	17.5	16.0	12.5	14.0
11	20.0	13.5	16.5	21.5	15.0	18.0	19.5	13.5	16.5	16.0	12.0	14.0
12	20.5	14.5	17.5	22.0	15.5	18.5	20.0	14.0	17.0	16.0	11.5	14.0
13	21.0	15.0	18.0	23.0	16.0	19.5	18.5	14.5	16.0	15.0	12.0	13.0
14	18.5	16.0	17.5	23.5	17.0	20.0	18.5	13.5	16.0	15.5	11.0	13.5
15	16.0	12.5	14.0	22.5	17.0	19.5	18.5	12.5	15.5	15.5	12.0	13.5
16	13.5	11.5	12.5	18.0	14.5	16.0	18.5	12.5	15.5	14.0	9.0	11.5
17	17.0	11.0	14.0	14.5	12.0	12.5	19.5	13.0	16.0	14.5	9.0	12.0
18	18.5	12.0	15.5	12.5	11.5	12.0	20.0	13.5	16.5	14.5	10.0	12.0
19	20.0	13.5	16.5	17.5	11.5	14.5	20.0	14.0	17.0	14.0	9.5	12.0
20	18.0	15.0	16.5	17.5	12.5	15.0	19.5	14.0	16.5	14.5	9.5	12.0
21	15.5	13.5	14.5	15.0	13.0	14.0	19.5	13.5	16.5	15.0	10.0	12.5
22	18.5	11.5	14.5	16.0	12.5	14.0	17.0	14.0	15.5	15.5	10.5	13.0
23	19.5	13.0	16.0	18.0	12.5	15.0	18.5	13.0	15.5	15.0	11.0	13.0
24	20.5	13.5	17.0	19.0	13.5	16.5	19.5	14.0	16.5	14.5	11.5	13.0
25	21.0	15.0	18.0	19.5	15.0	17.0	19.0	13.5	16.5	15.0	11.5	13.0
26	22.5	16.0	19.5	20.0	14.5	17.0	19.5	13.5	16.5	14.0	10.5	12.0
27	23.0	16.5	19.5	19.5	14.0	16.5	19.5	14.0	16.5	13.0	9.0	11.0
28	22.5	16.0	19.5	19.5	14.0	16.5	20.0	14.0	17.0	13.0	8.5	11.0
29	22.5	16.5	19.5	19.0	14.5	16.5	20.0	14.5	17.5	13.5	9.0	11.0
30	23.0	16.5	19.5	17.0	14.5	15.5	20.0	14.5	17.5	13.5	9.0	11.5
31	---	---	---	19.0	13.0	16.0	20.0	15.5	17.5	---	---	---
MONTH	23.0	10.0	16.5	23.5	11.5	16.5	21.5	12.5	17.0	19.0	8.5	13.0
YEAR	23.5	.0	10.5									

14337600 ROGUE RIVER NEAR MCLEOD, OR

LOCATION.--Lat 42°39'20", long 122°42'50", in SW 1/4 sec.33, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on left bank at Obstinate J Ranch, 1.3 mi downstream from Big Butte Creek, 1.6 mi southwest of McLeod, and at mile 154.0.

DRAINAGE AREA.--938 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,489.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since February 1977 by Lost Creek Lake (station 14335040). Diversions for irrigation upstream from station; most of low flow of Big Butte Creek is diverted near Butte Falls.

AVERAGE DISCHARGE.--22 years, 2,166 ft^3/s, 1,569,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s Mar. 3, 1972, gage height, 12.24 ft; minimum discharge, 468 ft^3/s Feb. 18, 1977, result of closure of Lost Creek Dam, minimum prior to that time, 604 ft^3/s Sept. 5, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1928, 20.35 ft Dec. 22, 1964, from floodmarks, discharge, 74,300 ft^3/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,520 ft^3/s Jan. 27, gage height, 3.71 ft; maximum gage height, 3.77 ft Jan. 27, from crest-stage gage; minimum discharge, 784 ft^3/s Jan. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1260	1870	1760	1540	2190	859	1410	2750	1710	2050	2060	2630
2	1270	1850	1880	1420	2870	849	1420	2770	1570	2060	2070	2630
3	1280	1940	1880	1490	2840	857	1400	2740	1560	2040	2060	2630
4	1320	2080	1710	1330	2420	858	1400	2550	1560	2040	2050	2650
5	1320	2060	1600	1240	1980	888	1390	2440	1560	2040	2040	2650
6	1330	2070	1600	1200	1410	874	1370	2410	1560	2050	2040	2650
7	1350	1980	1590	1160	1000	858	1250	2290	1560	2040	2050	2650
8	1350	1920	1580	1130	941	851	1000	2130	1570	2040	2050	2650
9	1360	1880	1580	1110	921	1100	857	1980	1570	2040	2050	2490
10	1360	1890	1570	1110	894	1340	1160	1900	1570	2050	2050	2060
11	1350	1870	1570	1090	933	1350	1340	1960	1730	2050	2050	1800
12	1350	1600	1510	1080	910	1590	1340	1970	1880	2050	2050	1660
13	1330	1470	1470	1090	1520	2230	1320	1960	1870	2040	2060	1530
14	1320	1520	1470	1090	2100	2810	1290	1860	1860	2050	2050	1450
15	1240	1510	1470	1100	1970	2780	1280	1700	1880	2060	2050	1370
16	1230	1510	1470	1090	1930	2310	1690	1700	1860	2040	2050	1270
17	1260	1510	1440	1080	1710	1620	2230	1720	1890	2050	2070	1280
18	1310	1510	1440	1080	1560	2110	2290	1690	1880	2160	2050	1290
19	1260	1510	1440	1070	1520	2530	2310	1640	1880	2130	2050	1290
20	1270	1510	1440	1080	1510	2460	2210	1620	1850	2110	2090	1290
21	1240	1610	1430	1080	1500	2390	2080	1620	1870	2080	2390	1290
22	1240	2280	1440	1020	1470	2370	2150	1590	1880	2170	2440	1290
23	1240	2290	1450	797	1240	2120	2370	1560	1870	2140	2440	1280
24	1240	2650	1440	1170	964	1580	2430	1650	1870	2100	2430	1300
25	1240	2980	1440	1520	915	1550	2410	1550	1920	2080	2450	1310
26	1240	2950	1440	1590	896	1520	2410	1380	2050	2080	2440	1350
27	1260	2910	1430	2380	882	1500	2400	1380	2050	2070	2440	1350
28	1250	2720	1430	3130	871	1470	2410	1490	2050	2070	2570	1350
29	1240	2010	1410	2910	---	1460	2580	1450	2040	2060	2640	1370
30	1420	1680	1410	2290	---	1430	2740	1460	2030	2050	2650	1360
31	1880	---	1220	1600	---	1420	---	1770	---	2050	2650	---
TOTAL	40610	59140	47010	43067	41867	49934	53937	58680	54000	64140	68630	53170
MEAN	1310	1971	1516	1389	1495	1611	1798	1893	1800	2069	2214	1772
MAX	1880	2980	1880	3130	2870	2810	2740	2770	2050	2170	2650	2650
MIN	1230	1470	1220	797	871	849	857	1380	1560	2040	2040	1270
AC-FT	80550	117300	93240	85420	83040	99040	107000	116400	107100	127200	136100	105500

CAL YR 1986 TOTAL 806730 MEAN 2210 MAX 11000 MIN 1130 AC-FT 1600000
WTR YR 1987 TOTAL 634185 MEAN 1737 MAX 3130 MIN 797 AC-FT 1258000

14337600 ROGUE RIVER NEAR MCLEOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1970 to current year.

INSTRUMENTATION.--Temperature recorder since August 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 18.0°C July 17, 18, Aug. 7, 1973; minimum, 0.5°C Jan. 3-5, 14, 15, 1971. Maximum since full operation of Lost Creek Lake, 15.0°C July 1, 1980; minimum, 3.0°C Feb. 2, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 14.0°C Aug. 16-20; minimum, 4.5°C several days in January and February.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	7.5	7.5	7.5	7.5	7.5	7.0	7.0	7.0	6.0	6.0	6.0
2	7.5	7.5	7.5	7.5	7.5	7.5	7.0	7.0	7.0	6.0	5.5	5.5
3	8.0	7.5	7.5	7.5	7.5	7.5	7.0	6.5	7.0	6.0	5.5	6.0
4	8.0	7.5	7.5	7.5	7.5	7.5	7.0	6.5	7.0	6.0	5.5	6.0
5	8.0	7.5	8.0	7.5	7.5	7.5	7.0	7.0	7.0	6.0	5.5	5.5
6	8.0	7.5	8.0	7.5	7.5	7.5	7.0	7.0	7.0	6.0	5.5	5.5
7	8.0	7.5	8.0	7.5	7.5	7.5	7.0	6.5	6.5	5.5	5.0	5.5
8	8.0	7.5	8.0	7.5	7.5	7.5	6.5	6.5	6.5	5.0	5.0	5.0
9	8.0	7.5	8.0	7.5	7.5	7.5	6.5	6.5	6.5	5.0	5.0	5.0
10	8.0	7.5	8.0	7.5	7.5	7.5	6.5	6.5	6.5	5.5	5.0	5.0
11	8.0	7.5	8.0	7.5	7.5	7.5	6.5	6.5	6.5	5.0	5.0	5.0
12	8.0	7.5	7.5	7.5	7.5	7.5	6.5	6.5	6.5	5.5	5.0	5.0
13	8.0	7.5	7.5	7.5	7.5	7.5	6.5	6.5	6.5	5.5	5.0	5.0
14	8.0	7.5	7.5	7.5	7.5	7.5	6.5	6.5	6.5	5.5	5.0	5.0
15	8.0	7.5	7.5	7.5	7.5	7.5	6.5	6.0	6.0	5.0	5.0	5.0
16	8.0	7.5	7.5	7.5	7.5	7.5	6.0	6.0	6.0	5.0	4.5	4.5
17	8.0	7.5	7.5	7.5	7.5	7.5	6.0	6.0	6.0	5.0	4.5	4.5
18	8.0	7.5	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.0	4.5	4.5
19	8.0	7.5	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.0	4.5	4.5
20	8.0	7.5	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.0	4.5	4.5
21	8.0	7.5	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.0	4.5	4.5
22	8.0	7.5	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.0	4.5	4.5
23	8.0	7.5	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.0	5.0	5.0
24	8.0	8.0	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.0	4.5	4.5
25	8.5	8.0	8.0	7.5	7.0	7.5	6.0	6.0	6.0	5.0	4.5	4.5
26	8.5	8.0	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.5	5.0	5.0
27	8.5	8.0	8.0	7.5	7.5	7.5	6.0	6.0	6.0	5.5	5.0	5.0
28	8.0	8.0	8.0	7.5	7.0	7.0	6.0	5.5	6.0	5.5	5.0	5.0
29	8.0	8.0	8.0	7.0	7.0	7.0	6.0	6.0	6.0	5.0	5.0	5.0
30	8.0	8.0	8.0	7.0	7.0	7.0	6.0	5.5	6.0	5.0	5.0	5.0
31	8.0	7.5	7.5	---	---	---	6.0	5.5	6.0	5.5	5.0	5.0
MONTH	8.5	7.5	8.0	7.5	7.0	7.5	7.0	5.5	6.5	6.0	4.5	5.0

14337600 ROGUE RIVER NEAR MCLEOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	5.0	5.0	5.5	5.0	5.0	6.5	6.0	6.0	8.5	8.5	8.5
2	5.5	5.5	5.5	5.5	5.0	5.5	6.5	6.0	6.0	8.5	8.5	8.5
3	5.5	5.5	5.5	5.5	5.5	5.5	6.5	6.0	6.0	9.0	8.5	8.5
4	5.5	5.0	5.0	6.0	5.5	5.5	6.5	6.0	6.5	9.5	8.5	9.0
5	5.5	5.0	5.0	6.0	5.5	6.0	6.5	6.0	6.5	9.5	9.0	9.0
6	5.5	5.0	5.5	6.0	5.5	5.5	6.5	6.0	6.0	9.5	9.0	9.5
7	5.5	5.0	5.5	5.5	5.0	5.5	7.0	6.5	6.5	10.0	9.5	9.5
8	5.5	5.5	5.5	5.5	5.5	5.5	7.5	7.0	7.0	9.5	9.5	9.5
9	5.5	5.5	5.5	5.5	5.5	5.5	7.5	7.0	7.0	10.0	9.0	9.5
10	6.0	5.5	5.5	5.5	5.0	5.5	7.5	7.0	7.0	10.0	9.5	9.5
11	6.0	5.5	6.0	5.5	5.0	5.0	7.0	6.5	7.0	10.0	9.5	9.5
12	6.0	5.5	5.5	5.5	5.0	5.5	7.0	6.5	7.0	10.0	9.5	9.5
13	5.5	5.5	5.5	5.5	5.0	5.5	7.5	6.5	7.0	10.0	9.5	10.0
14	5.5	5.5	5.5	5.0	5.0	5.0	7.5	7.0	7.5	10.0	9.5	10.0
15	5.5	5.5	5.5	5.0	5.0	5.0	8.0	7.0	7.5	10.0	9.5	10.0
16	5.5	5.5	5.5	5.5	5.0	5.0	7.5	7.5	7.5	10.5	9.5	10.0
17	5.5	5.0	5.5	5.5	5.5	5.5	7.5	7.0	7.0	10.0	9.5	10.0
18	5.5	5.5	5.5	5.5	5.0	5.5	7.0	7.0	7.0	10.5	9.5	10.0
19	5.5	5.0	5.0	5.0	5.0	5.0	7.5	6.5	7.0	10.5	9.5	10.0
20	5.5	5.0	5.0	5.0	5.0	5.0	8.0	7.0	7.0	10.0	9.5	9.5
21	5.5	5.0	5.0	5.5	5.0	5.0	8.5	8.0	8.0	10.0	8.5	9.5
22	5.5	5.0	5.0	5.5	5.0	5.0	8.5	8.0	8.0	10.5	9.5	10.0
23	5.0	5.0	5.0	5.5	5.5	5.5	8.5	8.0	8.0	10.5	10.0	10.0
24	5.0	4.5	5.0	6.0	5.5	5.5	8.5	8.0	8.5	10.5	10.0	10.0
25	5.0	4.5	4.5	6.0	5.5	5.5	8.5	8.0	8.5	10.0	10.0	10.0
26	5.0	4.5	4.5	6.0	5.5	6.0	8.5	8.5	8.5	10.0	10.0	10.0
27	5.5	4.5	5.0	6.0	5.5	5.5	8.5	8.0	8.5	10.0	9.5	10.0
28	5.5	4.5	5.0	6.0	5.5	5.5	9.0	8.5	8.5	10.5	9.5	10.0
29	---	---	---	6.0	5.5	5.5	9.0	8.5	8.5	10.5	10.0	10.5
30	---	---	---	6.0	5.5	6.0	8.5	8.5	8.5	10.5	10.0	10.0
31	---	---	---	6.0	5.5	6.0	---	---	---	10.5	10.0	10.0
MONTH	6.0	4.5	5.5	6.0	5.0	5.5	9.0	6.0	7.5	10.5	8.5	9.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.5	10.0	10.0	10.5	10.0	10.5	12.5	11.5	12.0	13.0	12.5	13.0
2	11.0	10.0	10.5	10.5	10.0	10.5	13.5	12.5	13.0	12.5	12.0	12.0
3	11.0	10.5	10.5	10.5	10.0	10.5	13.0	12.5	12.5	12.0	12.0	12.0
4	11.0	10.5	10.5	10.5	10.0	10.5	13.0	12.5	13.0	12.0	12.0	12.0
5	11.0	10.5	11.0	10.5	10.0	10.5	13.0	12.5	13.0	12.0	11.5	11.5
6	11.0	10.5	10.5	10.0	9.5	10.0	13.0	12.5	13.0	12.0	11.5	12.0
7	10.5	10.0	10.0	10.0	9.5	9.5	13.5	12.5	13.0	12.0	12.0	12.0
8	10.5	10.0	10.0	10.0	9.5	9.5	13.5	13.0	13.0	12.0	11.0	11.5
9	10.5	10.0	10.5	10.0	9.5	9.5	13.5	13.0	13.0	11.0	10.5	11.0
10	10.5	10.0	10.0	10.0	9.5	10.0	13.5	13.0	13.0	11.0	10.0	11.0
11	10.5	10.0	10.5	10.0	9.5	10.0	13.5	13.0	13.0	11.5	11.0	11.0
12	10.5	10.0	10.5	10.5	10.0	10.0	13.5	13.0	13.5	11.5	11.0	11.5
13	11.0	10.0	10.5	10.5	10.0	10.0	13.5	13.0	13.5	12.0	11.0	11.5
14	11.0	10.5	10.5	11.0	10.0	10.0	13.5	13.0	13.5	11.5	9.0	11.0
15	10.5	10.0	10.5	12.0	10.5	11.0	13.5	13.5	13.5	9.0	8.0	8.5
16	10.5	10.0	10.0	11.5	11.5	11.5	14.0	13.5	13.5	8.0	7.5	8.0
17	11.0	10.0	10.5	11.5	11.0	11.5	14.0	13.5	13.5	8.0	7.5	7.5
18	10.5	9.5	10.0	11.5	11.0	11.0	14.0	13.5	13.5	8.0	7.5	7.5
19	10.0	9.0	9.5	12.0	11.5	11.5	14.0	13.5	14.0	8.0	7.5	7.5
20	9.5	9.0	9.5	12.0	11.5	11.5	14.0	12.5	13.5	8.0	7.5	7.5
21	9.5	9.0	9.5	11.5	11.5	11.5	12.5	12.5	12.5	8.0	7.5	7.5
22	9.5	9.0	9.5	12.0	11.5	11.5	12.5	12.5	12.5	8.0	7.5	7.5
23	10.0	9.0	9.5	12.0	11.5	12.0	13.0	12.5	12.5	8.0	7.5	7.5
24	10.0	9.5	9.5	12.0	11.5	12.0	13.0	12.5	13.0	7.5	7.0	7.5
25	10.0	9.5	10.0	12.0	11.5	12.0	13.0	13.0	13.0	7.5	7.0	7.5
26	10.0	9.5	10.0	12.0	11.5	11.5	13.5	13.0	13.0	7.5	7.5	7.5
27	10.5	9.5	10.0	12.0	11.5	11.5	13.5	13.0	13.5	7.5	7.0	7.5
28	10.5	10.0	10.0	12.0	11.5	12.0	13.5	13.0	13.0	7.5	7.0	7.5
29	10.5	10.0	10.0	12.0	11.5	12.0	13.0	12.5	12.5	7.5	7.0	7.5
30	10.5	10.0	10.0	12.0	11.5	12.0	13.0	12.5	13.0	7.5	7.5	7.5
31	---	---	---	12.5	11.5	12.0	13.0	13.0	13.0	---	---	---
MONTH	11.0	9.0	10.0	12.5	9.5	11.0	14.0	11.5	13.0	13.0	7.0	9.5
YEAR	14.0	4.5	8.0									

14337800 ELK CREEK NEAR CASCADE GORGE, OR

LOCATION.--Lat 42°46'25", long 122°40'15", in NW 1/4 sec.23, T.32 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.1 mi downstream from Sugarpine Creek, 6.5 mi northwest of town of Cascade Gorge, and at mile 10.7.

DRAINAGE AREA.--78.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,813.83 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Estimated daily discharge: Jan. 17. Water-discharge records good. No regulation. Many diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--14 years, 151 ft^3/s, 26.02 in/yr, 109,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,780 ft^3/s Jan. 15, 1974, gage height, 8.9 ft, from floodmark; minimum daily discharge, 0.72 ft^3/s Aug. 24, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	2130	*2,530	*6.49	Feb. 2	0400	1,730	5.81

Minimum discharge, 1.9 ft^3/s Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	41	148	468	752	95	127	54	20	4.5	9.4	2.3
2	32	32	117	497	1340	91	129	52	17	4.9	8.3	2.7
3	28	27	97	404	655	97	129	51	15	4.3	7.4	2.9
4	25	24	86	346	419	118	119	46	13	4.5	6.6	2.8
5	22	22	89	246	307	154	108	44	12	5.1	6.8	2.7
6	20	20	88	180	246	179	100	42	12	5.6	6.3	2.7
7	19	31	81	136	212	156	95	40	12	4.5	6.1	3.1
8	17	70	74	113	188	141	97	38	12	3.9	5.7	2.8
9	17	133	66	91	170	146	95	36	11	4.1	5.4	2.9
10	16	151	60	82	157	135	95	34	11	4.5	5.0	2.5
11	15	93	54	76	164	133	98	32	10	4.5	4.7	2.6
12	14	75	53	76	157	191	89	31	9.8	3.5	4.5	2.9
13	13	65	57	76	425	278	83	28	8.7	3.4	4.6	3.0
14	13	57	63	74	537	307	82	25	7.7	3.2	5.0	3.3
15	13	48	56	65	421	315	82	24	8.8	2.8	5.1	3.3
16	12	41	52	63	378	262	85	23	10	3.5	4.9	2.9
17	14	38	48	67	359	266	88	22	10	7.0	4.7	3.1
18	16	36	47	56	335	350	86	21	8.7	60	4.4	2.8
19	14	39	52	54	276	338	81	21	8.1	52	4.0	2.6
20	13	45	51	54	228	291	73	20	8.3	26	3.9	2.5
21	12	201	49	50	197	243	68	19	9.1	19	3.8	2.5
22	12	625	67	50	171	204	70	18	9.0	82	3.8	2.4
23	12	362	95	64	160	241	71	18	7.3	50	3.9	2.3
24	12	233	113	264	143	248	69	20	6.6	33	3.3	2.4
25	12	201	117	1210	129	224	66	20	5.8	24	2.8	2.6
26	12	169	109	1220	116	201	62	19	4.9	18	3.1	2.7
27	17	168	101	650	106	177	61	19	4.8	15	3.1	2.7
28	16	333	89	611	99	157	61	17	5.3	13	3.1	2.8
29	19	298	89	413	---	142	59	16	4.8	12	2.9	2.8
30	73	197	86	312	---	131	56	16	4.6	11	2.5	2.5
31	60	---	90	260	---	126	---	22	---	10	2.5	---
TOTAL	628	3875	2444	8328	8847	6137	2584	888	287.3	498.8	147.6	82.1
MEAN	20.3	129	78.8	269	316	198	86.1	28.6	9.58	16.1	4.76	2.74
MAX	73	625	148	1220	1340	350	129	54	20	82	9.4	3.3
MIN	12	20	47	50	99	91	55	16	4.6	2.8	2.5	2.3
AC-FT	1250	7690	4850	16520	17550	12170	5130	1760	570	989	293	163
CFSM	.26	1.64	1.00	3.41	4.01	2.51	1.09	.36	.12	.20	.06	.03
IN.	.30	1.83	1.15	3.93	4.18	2.90	1.22	.42	.14	.24	.07	.04

CAL YR 1986 TOTAL 46661.1 MEAN 128 MAX 2630 MIN 1.2 AC-FT 92550 CFSM 1.62 IN. 22.03
WTR YR 1987 TOTAL 34746.8 MEAN 95.2 MAX 1340 MIN 2.3 AC-FT 68920 CFSM 1.21 IN. 16.40

14337800 ELK CREEK NEAR CASCADE GORGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1973 to October 1976, August 1977 to current year.

INSTRUMENTATION.--Temperature recorder August 1973 to October 1976 and since August 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 28.5°C July 29, 30, 1973, Aug. 9-11, 1981; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 28.0°C July 14; minimum, 0.0°C Jan. 15-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.5	7.5	9.0	9.0	6.0	7.5	5.5	4.0	4.5	5.5	4.5	5.0
2	10.5	6.0	8.0	8.5	5.0	6.5	5.0	3.5	4.0	5.5	5.0	5.5
3	11.5	6.5	9.0	8.0	5.0	6.5	5.5	3.5	4.5	6.0	5.5	5.5
4	12.0	7.5	9.5	6.0	5.0	5.5	6.0	4.0	5.0	6.0	5.0	5.5
5	13.0	8.0	10.0	8.5	5.5	6.5	6.5	5.0	5.5	5.5	4.5	5.0
6	13.0	8.5	10.5	7.5	5.5	6.5	6.0	4.5	5.5	4.5	3.0	4.0
7	13.5	9.0	11.0	6.5	4.0	5.0	4.5	3.0	3.5	3.5	2.0	2.5
8	13.0	8.5	11.0	7.0	5.0	6.0	3.5	2.5	3.0	2.5	1.0	2.0
9	13.0	9.0	10.5	7.5	6.0	6.5	3.5	1.5	2.5	2.5	.5	1.5
10	13.0	9.5	11.0	7.5	6.0	6.5	3.0	1.0	2.0	2.5	1.0	1.5
11	11.5	7.5	9.5	7.0	5.0	6.0	3.5	1.5	2.5	3.0	1.0	1.5
12	10.5	5.5	8.0	7.0	5.0	6.0	4.5	3.5	4.0	3.0	1.5	2.5
13	10.0	5.5	8.0	7.5	5.0	6.0	5.0	4.0	4.5	3.5	1.5	2.5
14	10.0	6.0	8.0	7.5	6.0	7.0	5.5	3.5	4.5	2.0	.5	1.5
15	10.0	6.0	8.0	7.0	6.5	6.5	4.0	2.0	3.0	.5	.0	.0
16	10.0	6.5	8.5	7.5	6.0	6.5	4.0	2.0	3.0	.0	.0	.0
17	10.5	8.5	9.5	8.0	6.0	7.0	3.0	1.5	2.0	.0	.0	.0
18	11.5	8.5	9.5	6.5	5.0	6.0	4.0	2.0	3.0	1.0	.0	.0
19	10.0	7.0	8.5	7.5	5.5	6.5	4.5	3.0	3.5	.5	.0	.0
20	10.0	6.0	8.0	7.5	6.5	7.0	3.5	2.5	3.0	.5	.0	.0
21	10.0	6.0	8.0	7.5	7.0	7.0	4.0	2.5	3.5	1.0	.0	.5
22	10.0	6.0	8.0	7.5	6.5	7.0	5.5	3.5	4.5	2.0	.5	1.0
23	9.0	6.5	8.0	8.0	7.0	7.5	6.0	4.5	5.0	3.0	1.5	2.0
24	10.0	7.0	8.5	7.5	6.5	7.0	5.0	3.5	4.5	3.0	1.0	2.0
25	11.5	8.0	10.0	6.5	5.5	6.0	5.0	4.0	4.5	4.5	3.0	4.0
26	12.5	9.0	10.5	7.0	6.0	6.5	6.5	4.0	5.0	5.5	4.5	5.0
27	12.5	9.5	11.0	7.5	6.5	7.0	4.0	3.0	3.5	6.0	4.5	5.0
28	9.5	7.5	8.5	7.0	6.0	6.5	4.0	2.0	3.0	5.5	4.5	5.0
29	9.0	7.5	8.0	7.0	5.5	6.5	5.5	3.0	4.0	5.5	4.5	5.0
30	9.5	8.5	9.0	6.0	4.5	5.0	3.5	2.0	3.0	5.5	4.0	4.5
31	10.5	7.5	9.0	---	---	---	5.0	3.0	4.0	5.0	4.0	4.5
MONTH	13.5	5.5	9.0	9.0	4.0	6.5	6.5	1.0	4.0	6.0	.0	2.5

14337800 ELK CREEK NEAR CASCADE GORGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	4.5	5.0	5.5	2.5	4.0	12.5	5.5	8.5	11.5	8.5	10.0
2	6.0	5.5	6.0	6.0	4.5	5.0	11.5	6.5	8.5	9.5	7.5	8.5
3	6.5	5.0	5.5	7.0	5.5	6.5	9.0	7.0	7.5	16.0	8.0	11.5
4	6.0	4.5	5.0	8.0	5.5	6.5	11.5	6.0	8.0	17.0	9.0	12.5
5	6.0	4.5	5.0	7.0	6.0	6.5	9.5	5.5	7.0	18.5	10.0	14.0
6	6.5	4.0	5.0	7.0	4.0	5.5	8.5	4.5	7.0	19.5	11.5	15.0
7	6.5	4.0	5.0	6.5	3.0	5.0	13.0	6.5	9.0	19.5	12.0	15.5
8	7.0	5.0	5.5	7.0	4.5	5.5	13.5	8.0	9.5	18.5	13.0	15.5
9	7.0	4.5	5.5	7.0	5.0	6.0	12.5	5.5	8.5	19.5	12.5	15.5
10	7.5	5.0	6.0	6.5	5.0	5.5	9.0	6.5	8.0	19.0	11.5	15.0
11	7.0	4.5	6.0	6.0	5.0	5.5	9.5	5.0	7.0	17.5	12.0	15.0
12	6.0	4.0	5.0	7.0	5.5	6.0	12.0	4.0	7.0	17.5	13.0	15.0
13	6.0	5.0	5.5	7.0	5.5	6.0	12.5	4.5	8.0	18.5	11.5	15.0
14	6.0	5.0	5.5	6.0	4.5	5.5	14.5	6.5	10.0	18.5	12.5	15.5
15	5.5	5.0	5.5	6.0	4.5	5.0	14.5	6.5	10.0	19.5	13.5	16.0
16	5.5	5.0	5.0	7.0	4.5	5.5	15.5	7.0	11.0	18.0	12.5	15.0
17	6.5	5.0	5.5	6.5	5.0	5.5	12.0	7.0	9.5	16.0	10.0	13.0
18	6.0	4.0	5.0	5.0	4.0	4.5	10.0	5.0	7.0	16.0	9.5	12.0
19	5.5	3.5	4.5	6.0	4.0	4.5	12.0	4.0	7.5	15.0	8.0	11.0
20	6.0	3.0	4.5	6.0	3.5	4.5	12.0	4.5	8.0	15.0	7.5	11.5
21	6.0	4.0	4.5	7.0	4.0	5.5	15.5	7.0	10.5	16.0	8.5	12.0
22	5.0	3.5	4.0	8.0	3.5	5.5	16.0	9.0	12.0	16.5	9.5	13.0
23	4.5	2.5	3.5	7.0	4.5	5.5	16.5	9.0	12.0	16.0	10.5	13.0
24	5.0	2.0	3.0	7.5	4.0	5.5	15.5	8.0	11.5	14.5	11.5	13.0
25	5.0	1.0	2.5	7.5	4.0	5.5	15.5	7.5	11.0	12.0	11.0	11.5
26	5.0	1.0	3.0	8.0	4.5	6.0	17.0	9.0	12.5	11.5	10.0	10.5
27	6.5	2.5	4.0	8.0	3.0	5.0	18.5	10.0	14.0	13.0	9.5	11.0
28	6.0	2.0	4.0	8.5	3.0	5.5	15.0	11.5	13.0	15.5	9.0	12.0
29	---	---	---	9.5	3.5	6.0	14.5	10.0	12.5	16.5	10.0	13.0
30	---	---	---	10.5	4.0	6.5	13.5	10.0	11.5	13.0	11.5	12.0
31	---	---	---	11.0	5.0	7.5	---	---	---	14.0	10.5	12.0
MONTH	7.5	1.0	5.0	11.0	2.5	5.5	18.5	4.0	9.5	19.5	7.5	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	8.0	12.0	25.5	18.5	21.0	21.5	13.5	17.0	22.0	17.0	19.0
2	18.5	10.0	14.0	25.5	17.5	20.5	22.5	14.5	18.0	20.0	15.0	17.5
3	20.0	12.5	16.0	25.0	16.0	20.0	24.0	15.5	19.5	19.5	14.5	17.0
4	20.5	14.5	17.5	22.0	16.0	18.5	24.5	16.5	20.0	[illegible]	13.0	15.5
5	20.5	14.5	17.0	22.0	14.5	17.5	23.5	15.5	19.0	[illegible]	13.0	15.0
6	21.0	12.5	16.5	22.0	14.0	17.5	22.5	15.0	18.5	17.5	13.0	15.0
7	16.5	14.0	15.5	23.0	14.5	18.5	23.5	15.0	19.0	18.5	13.0	15.5
8	21.0	14.0	17.0	24.0	16.0	19.5	24.5	16.0	19.5	16.0	13.5	15.0
9	20.0	14.5	17.0	22.5	15.0	18.5	24.5	16.5	20.0	18.5	13.5	16.0
10	20.5	12.0	16.0	23.5	15.5	19.0	23.0	16.0	19.0	19.0	14.5	16.5
11	22.0	13.0	17.0	25.0	15.0	19.5	22.0	14.5	18.0	18.5	13.5	16.0
12	22.5	14.0	18.0	26.5	16.0	20.5	22.5	15.0	18.5	18.5	12.5	15.0
13	24.0	15.0	19.0	27.5	17.0	22.0	21.5	16.0	18.0	18.0	13.0	15.0
14	22.0	16.5	18.5	28.0	18.0	22.5	20.5	14.5	17.0	17.0	12.0	14.5
15	17.0	13.5	14.5	27.0	18.0	22.0	21.0	13.5	16.5	17.0	13.0	14.5
16	14.5	12.5	13.5	21.5	15.0	18.0	21.0	13.0	16.5	16.0	9.5	12.5
17	18.5	11.5	15.0	16.0	13.0	14.5	21.5	13.5	17.0	16.0	10.0	13.0
18	20.5	12.0	16.0	13.0	12.0	12.5	22.0	14.5	18.0	16.5	10.5	13.5
19	22.0	13.0	17.0	18.5	11.5	14.5	22.5	15.0	18.5	16.0	10.0	13.0
20	18.5	15.0	16.5	18.0	12.0	15.0	22.0	15.0	18.0	17.0	10.5	13.5
21	17.0	13.5	15.0	15.0	13.5	14.0	21.5	14.0	17.5	17.5	10.5	14.0
22	19.5	10.5	15.0	15.0	12.5	13.5	19.0	15.0	17.0	18.0	11.0	14.5
23	21.5	12.5	16.5	18.0	11.5	16.5	21.0	14.5	17.5	17.5	12.0	14.5
24	22.5	13.0	17.5	20.5	12.5	15.5	22.0	15.0	18.0	17.5	13.0	15.0
25	24.5	15.5	19.5	20.0	13.0	16.0	22.0	15.0	18.0	17.0	12.0	14.0
26	26.0	17.0	21.0	21.0	13.5	17.0	22.0	15.0	18.5	17.0	12.0	14.0
27	26.0	17.5	21.0	20.5	13.5	16.5	23.0	15.5	18.5	16.0	9.5	12.5
28	26.0	17.0	21.0	20.5	13.5	17.0	23.0	15.5	19.0	16.5	9.5	13.0
29	26.5	17.5	21.5	17.0	14.5	15.5	23.5	15.5	19.0	16.0	9.5	13.0
30	27.0	18.0	22.0	20.0	15.0	17.0	24.5	16.0	19.5	16.5	10.0	13.0
31	---	---	---	20.5	13.5	17.0	23.5	16.5	20.0	---	---	---
MONTH	27.0	8.0	17.0	28.0	11.5	17.5	24.5	13.0	18.5	22.0	9.5	14.5
YEAR	28.0	.0	10.5									

14337830 ELK CREEK BELOW ALCO CREEK, NEAR TRAIL, OR

LOCATION.--Lat 42°40'46", long 122°42'37", in NW 1/4 sec.4, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on Corps of Engineers' Land, on right bank 500 ft downstream from Alco Creek, and 7.5 mi northeast of Trail.

DRAINAGE AREA.--111 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1986 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Elevation of gage is 1,680 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 1-16, 25-28, Feb. 1-3, 13, 14, May 15 to July 9. Records good except for estimated daily discharges, and those below 5 ft^3/s, which are fair. No regulation. Some diversions upstream from station for irrigation. Operated as a low-flow station only.

EXTREMES FOR PERIOD OF RECORD.--Minimum discharge recorded, 0.60 ft^3/s Aug. 16, 17, 1986.

EXTREMES FOR CURRENT YEAR.--Minimum discharge recorded, 0.86 ft^3/s Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	56	195	600	800	119	142	60	21	5.2	12	1.5
2	40	43	144	640	1800	116	142	60	20	5.4	9.1	1.3
3	33	35	123	500	900	124	140	59	17	5.0	8.5	1.2
4	29	29	106	400	627	147	128	56	16	5.2	7.1	1.9
5	25	25	111	280	423	179	116	51	14	5.6	4.8	2.0
6	22	23	107	200	316	211	107	50	14	6.0	5.0	1.8
7	20	44	99	150	260	183	101	48	14	5.2	4.7	1.9
8	17	105	88	120	224	164	101	46	14	4.5	4.4	2.0
9	16	193	80	100	197	171	99	43	13	4.7	4.7	2.1
10	15	228	73	96	178	160	100	41	12	5.0	3.8	2.5
11	14	131	66	90	182	157	105	37	11	4.5	3.8	2.8
12	13	98	64	86	172	234	94	37	10	4.0	3.3	2.7
13	12	80	67	82	400	384	89	35	10	3.3	3.3	2.8
14	12	68	75	80	800	415	86	30	9.2	2.7	3.9	3.2
15	12	58	68	80	652	452	87	28	10	2.5	3.6	3.3
16	12	51	61	84	563	365	85	27	11	2.4	3.6	3.6
17	13	47	58	84	516	356	86	26	11	3.5	4.1	3.0
18	16	45	59	78	477	487	82	25	10	60	4.0	3.1
19	15	51	62	70	382	486	76	24	9.7	70	3.8	2.8
20	12	54	66	66	301	410	73	23	9.5	38	3.3	2.6
21	12	288	61	66	251	331	72	22	9.5	28	3.6	2.1
22	11	868	85	66	212	264	73	21	9.4	108	2.8	2.3
23	11	464	128	80	197	317	74	21	9.2	76	3.2	1.8
24	11	292	152	332	178	337	72	22	8.0	50	3.2	1.7
25	11	257	155	900	159	297	69	22	6.8	36	2.7	1.4
26	11	208	146	1700	143	256	68	21	5.8	27	2.0	1.6
27	17	215	132	900	130	217	65	21	5.5	21	2.0	1.8
28	17	481	116	860	124	188	65	20	5.8	18	1.9	2.4
29	19	428	105	609	---	165	64	19	5.4	16	1.7	2.5
30	94	257	96	429	---	149	61	19	5.2	14	1.8	2.6
31	83	---	104	341	---	142	---	21	---	13	1.7	---
TOTAL	693	5222	3052	10169	11564	7983	2722	1035	327.0	649.7	127.4	68.3
MEAN	22.4	174	98.5	328	413	258	90.7	33.4	10.9	21.0	4.11	2.28
MAX	94	868	195	1700	1800	487	142	60	21	108	12	3.6
MIN	11	23	58	66	124	116	61	19	5.2	2.4	1.7	1.2
AC-FT	1370	10360	6050	20170	22940	15830	5400	2050	649	1290	253	135
CFSM	.20	1.57	.89	2.96	3.72	2.32	.82	.30	.10	.19	.04	.02
IN.	.23	1.75	1.02	3.41	3.88	2.68	.91	.35	.11	.22	.04	.02

WTR YR 1987 TOTAL 43612.4 MEAN 119 MAX 1800 MIN 1.2 AC-FT 86510 CFSM 1.08 IN. 14.62

14337830 ELK CREEK BELOW ALCO CREEK, NEAR TRAIL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1986 to current year.

INSTRUMENTATION.--Temperature recorder since April 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 31.0°C July 13,1987; minimum, 0.0°C Jan. 15-21, 1987.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 31.0°C July 13; minimum, 0.0°C Jan. 15-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.0	9.0	10.5	10.0	7.0	8.5	5.0	4.0	4.5	6.0	5.0	5.5
2	12.0	7.5	10.0	9.5	6.0	7.5	4.5	3.5	4.0	6.0	5.5	5.5
3	13.0	8.0	10.5	9.5	6.0	7.5	5.0	3.5	4.5	6.0	5.5	6.0
4	14.0	9.0	11.5	10.0	6.0	7.5	6.0	4.0	5.0	6.0	5.0	5.5
5	15.0	9.5	12.0	9.0	6.5	7.5	6.5	5.0	6.0	5.5	4.5	5.5
6	15.5	10.0	12.5	8.0	6.5	7.5	6.5	5.0	6.0	4.5	3.0	4.0
7	16.0	10.5	13.0	7.5	6.0	6.5	5.0	3.5	4.0	3.0	2.0	2.5
8	16.0	10.5	13.0	7.5	6.0	6.5	4.0	2.5	3.0	2.5	1.0	2.0
9	16.0	10.5	13.0	8.0	6.5	7.0	3.0	2.0	2.5	2.5	1.0	2.0
10	16.0	11.0	13.5	7.5	6.0	7.0	2.5	1.5	2.0	2.5	1.5	2.0
11	14.5	9.5	12.0	7.0	5.5	6.0	3.5	1.5	2.5	2.5	1.5	2.0
12	13.5	8.0	10.5	7.0	6.0	6.5	4.5	3.5	4.0	3.5	2.0	2.5
13	13.0	7.5	10.0	7.5	5.5	6.5	5.0	4.0	4.5	3.5	3.0	3.0
14	13.0	7.5	10.0	8.0	6.5	7.0	5.5	4.0	5.0	3.0	1.5	2.0
15	13.5	7.5	10.5	8.0	7.5	7.5	4.0	2.5	3.5	1.5	.0	.5
16	11.5	8.0	10.0	8.0	6.5	7.5	3.5	2.5	3.0	.0	.0	.0
17	11.5	10.0	10.5	9.5	7.0	8.0	3.0	1.5	2.0	.0	.0	.0
18	14.0	9.5	11.0	7.0	6.0	6.5	4.0	2.0	3.0	.5	.0	.0
19	13.5	9.0	10.5	8.0	6.5	7.0	4.5	3.5	4.0	1.0	.0	.0
20	13.0	8.0	10.5	8.0	7.0	7.5	4.0	3.0	3.5	1.0	.0	.0
21	13.0	8.0	10.0	8.0	7.0	7.5	4.0	2.5	3.5	1.0	.0	.5
22	13.0	8.0	10.0	8.0	7.0	7.5	5.5	3.5	4.5	2.0	.5	1.5
23	10.5	8.0	9.5	8.5	7.5	8.0	6.0	5.0	5.5	3.5	2.0	2.5
24	11.0	8.5	10.0	7.5	6.5	7.0	5.0	4.5	4.5	3.5	1.5	2.5
25	13.5	9.5	11.5	6.5	5.5	6.0	4.5	4.0	4.5	5.5	3.5	4.5
26	15.0	10.5	12.5	7.0	6.0	6.5	6.5	4.5	5.5	6.5	5.5	6.0
27	14.0	11.0	12.5	7.5	7.0	7.0	5.0	3.0	4.0	6.5	5.0	5.5
28	11.0	9.0	10.0	7.5	6.5	7.0	3.5	2.0	3.0	6.0	5.0	5.5
29	10.0	8.5	9.0	7.0	6.0	6.5	5.0	3.5	4.0	6.0	5.0	5.5
30	10.5	9.0	9.5	6.0	4.5	5.5	4.0	2.5	3.0	6.0	4.5	5.0
31	11.0	9.0	10.0	---	---	---	5.5	3.0	4.5	5.5	4.5	5.0
MONTH	16.0	7.5	11.0	10.0	4.5	7.0	6.5	1.5	4.0	6.5	.0	3.0

14337830 ELK CREEK BELOW ALCO CREEK, NEAR TRAIL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	5.5	5.5	3.5	4.5	12.5	6.5	9.5	13.5	10.0	11.5
2	7.0	6.0	6.5	6.5	4.5	5.5	12.0	7.0	9.5	10.5	9.0	9.5
3	7.0	5.5	6.	7.5	6.0	7.0	10.0	8.0	8.5	16.5	9.0	12.5
4	6.5	4.5	5.5	8.0	6.0	7.0	11.5	7.0	9.0	18.0	11.0	14.5
5	7.0	4.5	5.5	7.5	6.5	7.5	10.0	6.5	8.0	19.5	12.0	16.0
6	7.0	4.0	5.5	7.5	5.0	6.5	9.0	5.5	7.5	20.0	13.5	17.0
7	6.5	4.5	5.5	7.0	3.5	5.5	12.5	7.5	10.0	20.5	14.0	17.5
8	7.5	5.0	6.0	7.5	5.0	6.0	13.5	8.5	11.0	20.5	15.0	18.0
9	7.0	5.0	6.0	7.5	5.5	6.5	12.0	6.5	9.5	21.5	14.5	18.0
10	8.0	5.5	6.5	7.0	5.5	6.5	10.0	7.5	9.0	20.5	14.0	17.5
11	7.5	5.5	7.0	6.5	5.5	6.0	9.5	6.0	7.5	20.0	14.5	17.5
12	6.5	4.5	5.5	7.5	6.0	6.5	11.0	5.0	8.0	19.5	15.0	17.5
13	6.5	6.0	6.0	7.5	6.0	6.5	12.0	6.0	9.0	21.5	14.0	17.5
14	6.5	5.5	6.0	6.5	5.5	6.0	14.0	7.5	11.0	21.5	15.5	18.5
15	6.5	5.5	6.0	7.0	5.0	6.0	14.0	8.0	11.0	21.5	16.5	18.5
16	6.0	5.5	5.5	7.5	5.0	6.5	14.5	8.5	11.5	20.5	14.5	17.0
17	7.0	5.5	6.0	7.0	5.5	6.5	12.5	10.0	11.0	18.5	12.5	15.5
18	6.5	5.0	5.5	5.5	4.5	5.0	10.5	7.0	8.5	18.5	11.5	15.0
19	6.0	3.5	5.0	7.0	4.5	5.5	11.5	5.0	8.0	17.5	10.5	14.0
20	6.5	3.5	5.0	6.5	4.0	5.0	12.0	6.0	9.0	18.0	10.5	14.0
21	6.5	4.5	5.5	7.5	4.5	6.0	15.0	8.0	11.5	18.5	11.5	15.0
22	5.5	3.5	4.5	8.0	4.0	6.0	16.0	10.0	13.0	19.5	12.0	15.5
23	4.5	3.5	4.0	7.5	5.5	6.5	16.0	10.5	13.5	19.0	13.0	16.0
24	5.0	2.5	3.5	8.5	4.5	6.0	15.5	9.5	12.5	18.0	13.0	15.0
25	4.5	1.5	3.0	8.5	4.0	6.5	15.5	9.0	12.5	14.5	12.5	13.5
26	5.0	1.5	3.0	9.0	5.5	7.0	17.0	10.5	14.0	13.0	11.5	12.0
27	6.5	3.0	4.5	8.5	3.5	6.0	18.5	12.0	15.5	15.0	10.5	12.5
28	6.0	2.5	4.5	9.0	3.5	6.0	16.5	13.5	14.5	17.5	10.5	14.0
29	---	---	---	9.5	4.0	6.5	15.5	11.5	13.5	19.0	12.5	16.0
30	---	---	---	10.5	4.5	7.5	14.5	12.0	13.0	16.0	13.5	14.0
31	---	---	---	11.5	6.0	8.5	---	---	---	15.5	12.0	13.5
MONTH	8.0	1.5	5.5	11.5	3.5	6.5	18.5	5.0	10.5	21.5	9.0	15.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.0	10.0	14.5	29.5	22.5	25.5	24.5	16.5	20.0	24.0	20.0	22.0
2	22.0	12.0	17.0	28.0	20.5	24.0	26.0	17.0	21.5	21.5	18.0	20.0
3	22.5	15.0	19.0	28.0	19.5	23.5	28.0	18.5	22.5	21.0	17.0	19.5
4	24.0	17.0	20.5	25.5	19.0	22.0	28.0	19.5	23.5	20.5	15.5	18.0
5	23.5	16.5	19.5	25.5	17.5	21.0	28.0	18.5	22.5	21.0	15.5	18.5
6	24.0	15.0	19.5	26.5	17.0	21.5	26.5	18.0	22.0	20.0	16.0	18.0
7	19.5	16.5	18.5	26.5	18.0	22.0	27.5	17.5	22.0	20.5	16.5	18.5
8	24.5	16.5	20.0	27.0	19.0	22.5	29.0	19.0	23.0	20.0	16.5	18.5
9	23.0	17.0	19.5	26.0	18.0	22.0	28.5	19.5	23.5	20.5	16.5	18.5
10	23.5	15.0	19.5	27.5	18.5	22.5	27.5	18.5	22.5	20.0	16.5	18.5
11	24.5	16.0	20.5	28.5	18.5	23.5	26.0	17.0	21.0	19.5	15.5	17.5
12	26.0	17.5	21.5	30.0	19.5	24.5	26.5	17.5	21.5	19.0	15.0	17.0
13	27.0	18.0	22.5	31.0	21.0	25.5	24.5	18.5	21.0	18.5	15.0	16.5
14	25.5	19.5	22.0	30.5	21.5	26.0	24.5	16.5	20.5	19.0	14.5	17.0
15	19.5	15.0	16.5	29.0	22.0	25.5	25.0	16.5	20.5	18.5	15.0	17.0
16	16.5	14.0	15.0	24.5	18.5	21.5	25.0	16.0	20.0	17.0	13.0	15.0
17	21.5	13.0	17.5	20.0	16.0	17.5	25.5	16.0	20.5	17.5	12.5	15.0
18	23.5	15.0	19.0	16.0	14.0	15.0	26.0	17.0	21.0	17.5	13.5	15.5
19	25.0	16.0	20.5	20.0	13.0	16.0	26.5	17.5	21.5	17.0	13.5	15.5
20	22.0	18.5	20.0	20.5	14.5	17.5	26.0	17.5	21.5	17.5	13.5	15.5
21	20.0	16.5	18.0	17.5	15.5	16.5	25.5	17.0	21.0	17.5	14.0	16.0
22	23.0	13.5	18.0	17.0	14.5	15.5	22.0	17.0	19.5	18.5	14.5	16.5
23	24.5	16.0	20.0	19.5	13.5	16.0	24.5	16.5	20.0	18.0	15.0	17.0
24	26.5	16.5	21.0	21.0	14.5	17.5	26.0	17.5	21.5	17.5	16.0	17.0
25	28.5	18.5	23.5	21.5	15.5	18.5	25.5	17.5	21.5	17.0	15.0	16.0
26	30.0	20.5	24.5	23.0	16.0	19.5	25.0	18.0	21.5	17.0	14.5	16.0
27	30.0	21.0	25.0	23.5	16.0	19.5	25.0	18.5	22.0	16.5	13.0	15.0
28	30.5	20.5	25.0	23.5	16.0	20.0	25.0	18.5	22.0	16.5	13.0	15.0
29	30.5	21.0	25.5	23.5	17.0	20.0	25.0	19.0	22.0	16.5	13.5	15.0
30	30.0	22.0	26.0	22.5	17.0	19.0	25.5	19.5	22.5	17.0	14.0	15.5
31	---	---	---	24.0	16.0	19.5	25.0	20.0	23.0	---	---	---
MONTH	30.5	10.0	20.5	31.0	13.0	20.5	29.0	16.0	21.5	24.0	12.5	17.0
YEAR	31.0	.0	12.0									

14337870 WEST BRANCH ELK CREEK NEAR TRAIL, OR

LOCATION.--Lat 42°42'40", long 122°44'55", in SW 1/4 sec.7, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on Bureau of Land Management land, on left bank 300 ft upstream from Spot Creek and 5.3 mi northeast of Trail.

DRAINAGE AREA.--14.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to September 1976, October 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,773.24 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Oct. 1-25. Records good except for estimated daily discharges, which are fair. No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--13 years, 22.9 ft^3/s, 21.90 in/yr, 16,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft^3/s Jan. 15, 1974, gage height, 5.30 ft, from rating curve extended above 600 ft^3/s on basis of slope-area measurement of peak flow; minimum, 0.26 ft^3/s Sept. 16, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	2000	*463	3.03	Feb. 2	0400	410	2.92
Jan. 25	2000	(a)	*3.52	Feb. 2	0400	(a)	3.35

Minimum discharge, 0.62 ft^3/s Sept. 1.

(a) From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	6.4	17	74	145	15	12	4.5	2.2	.96	1.6	.66
2	3.4	4.4	13	68	260	15	11	4.5	2.0	1.0	1.4	.74
3	3.2	3.5	10	54	99	18	11	4.4	1.7	1.0	1.4	.79
4	3.1	3.1	8.5	47	57	23	9.9	4.0	1.5	.98	1.1	.82
5	3.0	2.8	8.3	31	37	24	8.9	3.8	1.5	1.0	1.0	.76
6	2.9	2.9	7.4	21	27	27	8.5	3.6	1.5	1.0	1.0	.73
7	2.8	13	6.4	15	22	25	8.1	3.4	1.5	1.0	1.0	.79
8	2.7	17	5.9	13	18	21	7.5	3.2	1.6	1.1	1.0	.82
9	2.6	19	5.4	10	15	22	7.0	3.2	1.5	1.1	.90	.76
10	2.5	23	4.7	8.2	13	21	7.4	3.1	1.5	.94	.91	.73
11	2.4	15	4.2	7.2	12	19	7.8	2.8	1.4	.90	1.0	.75
12	2.3	9.6	4.0	6.6	12	27	7.4	2.8	1.3	.86	.92	.79
13	2.2	6.8	4.2	6.4	60	40	7.1	2.8	1.1	.81	.97	.85
14	2.1	5.5	4.5	6.2	103	45	6.8	2.8	1.1	.80	1.0	.91
15	2.0	4.4	4.3	5.6	69	53	6.4	2.6	1.3	.71	1.1	.95
16	2.0	3.7	4.1	6.1	56	46	6.2	2.8	1.5	.79	1.0	.87
17	2.3	3.3	3.9	5.4	46	43	6.0	2.8	1.5	1.9	.99	.87
18	2.8	3.5	3.7	4.9	42	50	6.0	2.8	1.3	5.6	.94	.87
19	2.5	4.0	3.8	4.6	37	49	6.0	2.8	1.1	5.1	.82	.82
20	2.3	4.2	3.9	5.2	30	44	6.0	2.8	1.0	3.0	.85	.85
21	2.1	19	3.9	4.1	27	37	6.0	2.8	1.1	2.6	.91	.82
22	2.0	76	9.3	4.1	24	30	6.0	2.8	1.1	12	.91	.82
23	1.9	34	14	5.1	22	33	5.9	2.6	1.1	6.9	.95	.77
24	1.9	22	14	28	20	34	5.6	3.4	.99	5.2	.94	.78
25	1.9	23	13	209	18	33	5.4	3.2	.95	3.4	.87	.89
26	2.6	18	12	188	16	29	5.1	3.0	.87	2.7	.84	.95
27	4.4	16	9.9	89	15	24	4.7	2.8	.85	2.2	.84	.98
28	3.8	41	8.0	73	15	20	4.7	2.7	.85	1.9	.81	1.0
29	6.4	38	7.3	47	---	17	4.5	2.3	.92	1.6	.77	1.0
30	16	23	7.4	34	---	15	4.5	1.9	.94	1.6	.71	.95
31	11	---	8.0	29	---	14	---	2.2	---	1.6	.69	---
TOTAL	106.7	465.1	234.0	1109.7	1317	913	209.4	95.2	38.77	72.25	30.14	25.09
MEAN	3.44	15.5	7.55	35.8	47.0	29.5	6.98	3.07	1.29	2.33	.97	.84
MAX	16	76	17	209	260	53	12	4.5	2.2	12	1.6	1.0
MIN	1.9	2.8	3.7	4.1	12	14	4.5	1.9	.85	.71	.69	.66
AC-FT	212	923	464	2200	2610	1810	415	189	77	143	60	50
CFSM	.24	1.09	.53	2.52	3.31	2.07	.49	.22	.09	.16	.07	.06
IN.	.28	1.22	.61	2.91	3.45	2.39	.55	.25	.10	.19	.08	.07

CAL YR 1986 TOTAL 5208.78 MEAN 14.3 MAX 391 MIN .67 AC-FT 10330 CFSM 1.00 IN. 13.65
WTR YR 1987 TOTAL 4616.35 MEAN 12.6 MAX 260 MIN .66 AC-FT 9160 CFSM .89 IN. 12.09

14337870 WEST BRANCH ELK CREEK NEAR TRAIL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1977 to current year.

INSTRUMENTATION.--Temperature recorder since August 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 25.5°C Aug. 8, 1978; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 23.5°C July 14; minimum, 0.5°C Jan. 15-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.5	8.0	9.0	9.0	7.0	8.0	5.0	4.0	4.5	6.5	5.5	6.0
2	10.0	7.0	8.5	9.0	6.0	7.5	4.5	4.0	4.0	6.5	5.5	6.0
3	10.5	7.5	9.0	8.5	6.0	7.5	5.0	4.0	4.0	6.5	5.5	6.5
4	11.0	8.0	9.5	8.5	6.0	7.5	6.0	4.0	5.0	6.5	5.5	6.0
5	11.5	8.5	10.0	8.5	6.5	7.5	6.5	5.0	6.0	6.0	5.0	5.5
6	12.0	9.0	10.5	7.5	6.5	7.0	6.0	4.5	5.5	5.0	3.5	4.0
7	12.5	9.5	11.0	7.0	6.0	6.5	4.5	3.5	4.0	3.5	2.5	3.0
8	12.0	9.0	10.5	8.0	6.5	7.0	3.5	3.0	3.5	3.0	1.5	2.5
9	12.0	9.0	10.5	8.0	7.0	7.5	3.0	2.0	2.5	3.0	2.0	2.5
10	12.0	9.5	11.0	8.0	6.5	7.5	3.0	2.0	2.5	3.0	2.0	2.5
11	11.0	8.5	9.5	7.0	6.0	6.5	3.5	2.0	3.0	3.0	2.0	2.5
12	10.0	7.0	8.5	7.5	6.0	6.5	4.5	3.5	4.0	4.0	2.5	3.5
13	9.5	6.5	8.5	7.5	6.0	6.5	5.0	4.0	4.5	4.0	3.0	3.5
14	9.5	7.0	8.5	8.0	7.0	7.5	5.0	3.5	4.5	3.0	2.0	2.5
15	10.0	7.0	8.5	8.0	7.0	7.5	4.5	3.0	3.5	2.0	.5	1.0
16	10.0	7.5	9.0	8.0	6.5	7.0	3.5	3.0	3.5	.5	.5	.5
17	10.0	9.0	9.5	8.0	6.5	7.0	3.0	2.0	2.5	.5	.5	.5
18	10.5	8.5	9.5	7.0	5.5	6.5	4.5	2.5	3.5	1.5	.5	1.0
19	9.5	8.0	9.0	7.5	6.0	7.0	5.0	3.5	4.0	1.5	.5	1.0
20	9.5	7.0	8.5	8.0	7.0	7.5	3.5	2.5	3.0	1.5	.5	1.0
21	9.5	7.0	8.5	8.0	7.0	7.5	4.5	3.0	3.5	2.0	.5	1.0
22	9.5	7.5	8.5	8.0	7.5	7.5	6.0	4.0	5.0	2.5	1.5	2.0
23	9.5	7.5	8.5	8.5	7.0	8.0	6.0	5.0	5.5	4.0	2.5	3.0
24	10.0	8.0	9.0	7.5	6.0	6.5	5.5	4.5	5.0	4.5	2.5	3.5
25	11.0	9.0	10.0	6.5	5.5	6.0	5.0	4.0	4.5	6.0	4.5	5.5
26	11.5	9.5	11.0	7.0	6.0	6.5	6.5	4.5	5.5	7.0	6.0	6.5
27	11.0	9.0	10.5	7.5	7.0	7.0	4.5	3.5	4.0	7.0	5.5	6.0
28	9.5	8.0	8.5	7.0	6.5	7.0	4.5	3.0	3.5	6.5	5.5	6.0
29	9.5	8.0	8.5	7.0	5.5	6.5	6.0	4.0	5.0	6.5	5.5	6.0
30	10.0	9.0	9.5	5.5	4.5	5.0	4.0	3.0	3.5	6.0	5.0	5.5
31	10.5	8.0	9.5	---	---	---	5.5	3.5	5.0	6.0	5.0	5.5
MONTH	12.5	6.5	9.5	9.0	4.5	7.0	6.5	2.0	4.0	7.0	.5	3.5

14337870 WEST BRANCH ELK CREEK NEAR TRAIL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	6.0	6.0	6.5	4.0	5.5	12.5	7.0	9.0	12.5	9.0	10.5
2	7.5	6.5	7.0	7.5	5.5	6.5	12.5	7.5	9.5	10.0	8.5	9.5
3	7.5	6.0	6.5	8.0	6.5	7.0	9.5	8.0	8.5	15.5	9.0	11.5
4	7.5	5.5	6.5	8.5	6.5	7.5	10.5	7.5	8.5	16.5	10.0	12.5
5	7.0	5.5	6.0	8.0	6.5	7.5	10.5	6.5	8.0	17.5	10.5	13.5
6	7.0	5.0	6.0	7.5	5.0	6.5	9.5	6.0	8.0	18.5	12.0	15.0
7	7.0	5.0	6.0	7.5	4.5	6.0	12.5	8.0	10.0	19.0	12.5	15.5
8	8.0	6.0	7.0	7.5	5.5	6.5	13.0	8.5	10.0	18.5	13.0	15.5
9	7.5	5.5	6.5	8.0	6.0	7.0	12.5	6.5	9.5	19.0	13.0	15.5
10	8.5	6.0	7.0	7.5	6.0	6.5	10.0	7.0	9.0	18.5	12.0	15.0
11	8.0	5.5	7.0	7.0	6.0	6.5	8.5	6.0	7.0	17.5	12.0	14.5
12	7.0	5.0	6.0	8.0	6.5	7.0	11.5	5.0	7.5	16.5	13.0	15.0
13	7.0	6.5	6.5	8.0	6.5	7.0	12.5	6.0	9.0	18.0	12.0	15.0
14	7.0	6.0	6.5	6.5	5.5	6.5	14.0	7.5	10.5	17.5	13.0	15.0
15	7.0	6.0	6.5	6.5	5.0	6.0	14.0	8.0	11.0	17.5	13.0	15.0
16	6.5	5.5	6.0	7.5	5.5	6.5	15.0	8.5	11.5	16.0	12.0	13.5
17	7.0	6.0	6.5	7.0	5.5	6.5	12.0	9.0	10.5	15.0	9.5	12.0
18	6.5	5.0	6.0	6.0	5.0	5.5	10.5	6.5	8.0	14.5	9.0	11.5
19	6.0	4.5	5.0	6.5	4.5	5.5	11.5	5.0	7.5	13.5	8.0	10.5
20	6.5	4.0	5.5	6.5	4.5	5.5	11.5	6.0	8.5	14.0	7.5	10.5
21	6.5	5.0	5.5	7.0	5.0	6.0	15.0	8.0	11.0	14.0	8.5	11.0
22	6.0	3.5	5.0	8.0	4.5	6.0	15.5	9.5	12.5	15.0	9.0	12.0
23	5.0	3.5	4.0	7.5	5.5	6.5	15.5	10.0	12.5	15.0	10.0	12.0
24	5.0	3.0	4.0	8.0	4.5	6.0	15.0	9.0	11.5	13.5	10.5	11.5
25	5.0	2.0	3.5	8.5	5.0	6.5	15.0	8.5	11.5	12.0	10.0	11.0
26	5.0	2.5	3.5	8.5	5.5	6.5	16.5	10.0	13.0	11.0	9.0	10.0
27	6.5	4.0	5.0	8.5	4.0	6.0	18.0	11.0	14.0	12.0	8.5	10.0
28	6.5	3.5	5.0	9.0	4.0	6.0	15.0	12.5	14.0	13.0	8.5	10.5
29	---	---	---	9.5	4.5	6.5	14.5	10.5	13.0	15.0	9.5	12.0
30	---	---	---	10.5	5.0	7.5	13.5	10.5	12.5	12.0	10.5	11.0
31	---	---	---	11.5	6.0	8.5	---	---	---	12.5	10.0	11.0
MONTH	8.5	2.0	6.0	11.5	4.0	6.5	18.0	5.0	10.0	19.0	7.5	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	8.0	11.0	22.5	17.5	19.5	18.5	12.5	15.5	20.0	16.0	17.5
2	16.5	9.0	12.5	21.5	16.0	18.5	19.0	13.0	16.0	18.0	14.5	16.5
3	18.0	11.5	14.5	21.0	15.0	18.0	20.0	14.0	17.0	18.0	14.0	15.5
4	19.5	13.5	16.0	19.5	14.5	17.0	20.5	15.0	18.0	17.5	12.5	15.0
5	18.0	13.0	15.5	18.5	13.5	16.0	20.0	14.5	17.0	18.0	13.0	15.0
6	18.5	11.5	15.0	18.5	13.0	16.0	19.0	13.5	16.5	17.0	13.0	15.0
7	15.5	13.0	14.0	19.0	13.5	16.5	19.5	13.5	17.0	17.5	13.5	15.0
8	18.0	13.5	15.5	20.0	15.0	17.5	20.5	14.5	17.5	17.0	13.5	15.0
9	18.5	13.5	15.5	19.0	14.0	16.5	21.0	15.5	18.0	17.0	13.5	15.0
10	18.0	11.5	14.5	19.5	14.5	17.0	20.5	14.5	17.5	17.0	13.5	15.0
11	18.5	12.0	15.0	20.5	14.0	17.5	19.0	13.0	16.0	16.5	12.5	14.5
12	19.5	13.0	16.0	21.5	15.0	18.0	19.0	14.0	16.5	16.5	12.0	14.0
13	20.5	13.5	17.0	23.0	16.0	19.5	18.5	15.0	16.0	15.5	12.5	13.5
14	19.0	15.0	17.0	23.5	16.5	20.0	17.5	13.5	15.0	15.5	11.5	13.5
15	15.5	12.5	13.5	22.5	17.0	19.5	18.0	12.5	15.0	16.0	12.0	13.5
16	13.0	11.5	12.5	19.0	14.5	16.5	17.5	12.0	15.0	14.0	9.5	12.0
17	16.0	11.0	13.5	14.5	13.0	13.5	18.0	12.5	15.5	14.5	9.5	12.0
18	17.0	10.5	14.0	13.0	12.5	12.5	19.0	13.0	16.0	14.5	10.0	12.5
19	18.5	11.5	15.0	17.0	12.0	14.0	19.5	14.0	16.5	14.0	10.0	12.0
20	17.5	14.0	15.5	17.0	12.0	14.5	19.0	13.5	16.0	15.0	10.5	12.5
21	15.0	12.5	14.0	14.5	13.0	14.0	19.0	13.0	16.0	16.0	10.5	13.0
22	17.0	10.0	13.5	15.0	12.5	13.5	16.5	13.5	15.5	16.5	11.0	13.5
23	18.0	11.5	14.5	16.5	12.0	14.0	18.0	13.5	15.5	16.0	11.5	13.5
24	19.0	12.0	15.5	17.0	12.5	14.5	19.0	13.5	16.5	15.5	12.5	14.0
25	20.5	14.0	17.5	17.5	13.0	15.0	19.0	13.5	16.0	15.5	12.0	13.5
26	21.5	15.5	18.5	18.5	13.0	15.5	19.5	14.0	16.5	15.5	11.5	13.0
27	22.0	16.0	19.0	18.0	12.5	15.5	20.0	14.0	17.0	14.5	10.0	12.0
28	22.0	16.0	19.0	18.0	12.5	15.5	20.0	14.5	17.0	14.5	10.0	12.0
29	22.0	16.0	19.0	18.0	13.5	15.5	20.5	14.5	17.5	15.0	10.0	12.0
30	22.5	17.0	20.0	16.5	14.0	15.0	21.0	15.0	18.0	15.5	10.5	12.5
31	---	---	---	17.5	12.5	15.0	21.0	16.0	18.0	---	---	---
MONTH	22.5	8.0	15.5	23.5	12.0	16.0	21.0	12.0	16.5	20.0	9.5	14.0
YEAR	23.5	.5	10.0									

14338000 ELK CREEK NEAR TRAIL, OR

LOCATION.--Lat 42°39'50", long 122°44'50", in SW 1/4 sec.30, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 3.3 mi northeast of Trail and at mile 0.4.

DRAINAGE AREA.--133 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Prior to March 1946 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,456.56 ft above National Geodetic Vertical Datum of 1929. Prior to July 5, 1946, nonrecording gage at various sites within 1.0 mi of present site at different datums. July 5, 1946, to June 22, 1950, nonrecording gage, and June 23, 1950, to May 23, 1954, water-stage recorder, at site 0.3 mi upstream at datum 12.14 ft higher.

REMARKS.--Estimated daily discharge: July 18. Water-discharge records good. Low flow regulation resulting from construction of Elk Creek Dam 1.3 mi upstream. Diversions for irrigation and dam construction upstream from station.

AVERAGE DISCHARGE.--42 years, 230 ft^3/s, 166,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,200 ft^3/s Dec. 22, 1964, gage height, 18.84 ft, from rating curve extended above 4,700 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 0.24 ft^3/s Sept. 30, 1987, result of dam construction 1.3 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	2300	*3,280	*7.67	Feb. 2	0600	2,840	7.26

Minimum discharge, 0.24 ft^3/s Sept. 30, result of dam construction 1.3 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	64	217	647	1130	153	171	63	23	5.6	12	2.8
2	40	46	172	784	2240	148	169	60	20	4.9	11	2.1
3	33	36	144	593	1100	153	168	58	18	5.4	9.4	3.0
4	29	30	121	523	666	179	155	52	16	5.1	8.5	2.1
5	25	26	126	369	465	209	142	48	14	5.3	8.1	2.8
6	22	24	122	266	363	245	130	45	14	5.5	6.8	3.0
7	20	44	111	212	302	222	122	43	15	5.8	7.3	2.6
8	18	124	99	173	261	201	120	41	14	5.0	7.6	2.9
9	17	190	88	145	237	207	117	40	13	4.4	6.7	2.9
10	16	260	80	124	216	195	116	37	13	3.9	6.7	2.7
11	16	163	71	111	215	192	126	34	11	4.8	6.8	3.1
12	15	116	66	107	203	258	113	33	11	4.6	6.5	4.5
13	14	93	70	106	605	412	105	31	10	3.9	7.1	1.7
14	14	76	81	102	1010	457	100	28	9.8	3.9	6.4	4.3
15	13	64	74	92	698	504	98	27	9.8	3.4	5.9	4.4
16	13	50	67	81	601	412	96	27	11	2.9	5.3	3.3
17	14	46	62	79	542	395	96	27	12	3.2	4.9	4.3
18	18	46	59	75	507	517	96	25	11	44	5.0	4.6
19	16	52	65	71	422	523	91	26	9.5	79	3.4	3.4
20	15	53	68	64	349	448	85	24	9.7	37	5.7	2.8
21	13	276	63	61	293	375	81	24	9.9	25	2.2	3.8
22	13	828	94	63	255	310	81	23	9.4	101	2.3	2.3
23	13	493	157	79	241	344	82	23	9.5	83	5.3	2.5
24	13	308	175	360	223	367	79	25	7.8	51	3.8	2.5
25	13	273	184	1640	203	332	75	25	6.8	35	1.9	2.5
26	13	230	169	1970	183	289	71	24	6.8	26	2.4	3.3
27	17	226	154	994	167	255	68	25	6.4	20	1.8	3.2
28	19	454	135	958	158	227	68	23	5.2	18	1.8	3.2
29	20	457	132	630	---	203	65	21	5.4	15	2.7	2.5
30	104	286	129	464	---	185	63	20	5.2	14	3.4	.76
31	102	---	132	381	---	173	---	23	---	12	1.6	---
TOTAL	757	5434	3487	12324	13855	9090	3149	1025	337.2	637.6	170.3	89.86
MEAN	24.4	181	112	398	495	293	105	33.1	11.2	20.6	5.49	3.00
MAX	104	828	217	1970	2240	523	171	63	23	101	12	4.6
MIN	13	24	59	61	158	148	63	20	5.2	2.9	1.6	.76
AC-FT	1500	10780	6920	24440	27480	18030	6250	2030	669	1260	338	178

CAL YR 1986 TOTAL 64998.1 MEAN 178 MAX 3670 MIN 1.1 AC-FT 128900
WTR YR 1987 TOTAL 50355.96 MEAN 138 MAX 2240 MIN .76 AC-FT 99880

14338000 ELK CREEK NEAR TRAIL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1973 to current year.

INSTRUMENTATION.--Temperature recorder since June 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 31.5°C July 17, 1979; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 29.5°C June 27, 28, 30, July 13, 14; minimum, 0.0°C Jan. 15-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.0	9.0	11.0	10.5	7.5	9.0	5.5	4.0	4.5	6.5	5.5	6.0
2	12.5	8.5	10.5	10.0	6.5	8.5	5.0	4.0	4.5	6.5	6.0	6.0
3	13.5	9.0	11.5	9.5	6.5	8.0	5.5	4.0	4.5	7.0	6.0	6.5
4	14.5	10.0	12.5	9.5	6.5	9.0	5.5	4.5	5.0	6.5	5.5	6.0
5	15.5	11.0	13.0	9.0	7.0	8.0	6.5	5.5	6.0	6.5	5.0	6.0
6	16.0	11.5	13.5	9.0	7.0	8.0	7.5	5.5	6.5	5.5	3.5	4.5
7	16.5	12.0	14.0	8.5	7.0	7.5	5.5	4.0	5.0	4.0	2.5	3.0
8	16.0	12.0	14.0	8.5	6.0	7.0	4.5	3.0	4.0	3.0	1.0	2.0
9	16.5	12.0	14.0	8.0	7.0	7.5	4.0	2.5	3.5	3.0	1.5	2.0
10	16.5	12.0	14.0	8.0	6.5	7.5	3.5	1.5	2.5	3.5	1.5	2.5
11	15.0	11.0	13.0	8.0	5.5	6.5	3.5	1.5	2.5	3.5	1.5	2.5
12	14.0	9.0	11.5	8.0	6.5	7.0	5.0	3.5	4.0	4.0	2.0	3.0
13	13.0	8.5	11.0	8.0	6.0	7.0	5.5	4.5	5.0	4.5	3.5	4.0
14	13.0	8.5	11.0	8.0	6.5	7.5	6.0	4.5	5.5	3.5	2.0	3.0
15	13.5	9.0	11.0	8.5	7.5	8.0	4.5	3.0	3.5	2.0	.0	1.0
16	12.0	9.5	11.0	8.5	6.5	7.5	4.0	3.0	3.5	.5	.0	.0
17	12.5	10.5	11.5	9.5	7.5	8.5	3.5	2.0	3.0	.5	.0	.0
18	14.0	10.5	11.5	7.5	6.5	7.0	4.0	2.5	3.0	1.0	.0	.5
19	13.5	10.0	11.5	8.0	6.5	7.5	5.0	4.0	4.5	1.0	.0	.5
20	13.0	9.0	11.0	8.0	7.0	7.5	4.5	3.5	4.5	1.0	.0	.5
21	13.0	9.0	11.0	8.5	7.5	8.0	4.5	3.5	4.0	1.5	.0	.5
22	13.0	9.0	11.0	8.0	7.0	7.5	6.0	4.0	5.0	2.5	1.0	1.5
23	11.5	9.5	10.5	8.5	7.5	8.0	7.0	5.5	6.0	4.0	2.5	3.0
24	12.0	9.0	10.5	7.5	6.5	7.0	6.0	5.0	5.5	3.5	2.5	3.0
25	14.0	10.0	12.0	7.0	6.0	6.5	5.0	4.5	5.0	5.5	3.5	4.5
26	14.5	11.5	13.0	7.0	6.0	6.5	7.0	5.0	6.0	7.0	5.5	6.5
27	15.0	12.0	13.5	8.0	7.0	7.5	5.5	3.5	4.5	7.0	5.0	6.0
28	12.0	9.5	11.0	7.5	6.5	7.0	4.0	2.5	3.5	6.5	5.5	6.0
29	10.5	9.5	10.0	7.5	6.5	6.5	6.0	4.0	4.5	6.5	5.5	6.0
30	11.0	9.5	10.0	6.5	5.0	5.5	4.5	3.0	3.5	6.5	5.0	6.0
31	11.5	9.0	10.5	---	---	---	6.0	3.5	5.0	6.0	5.0	5.5
MONTH	16.5	8.5	12.0	10.5	5.0	7.5	7.5	1.5	4.5	7.0	.0	3.5

14338000 ELK CREEK NEAR TRAIL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	6.0	6.0	6.0	4.0	5.0	12.0	7.5	10.0	13.5	12.0	12.5
2	7.5	6.0	7.0	7.0	5.5	6.0	12.0	8.5	10.5	12.5	10.5	11.0
3	7.5	6.0	7.0	8.0	6.5	7.5	11.0	8.5	9.5	15.5	10.0	12.5
4	7.0	5.0	6.0	8.5	7.0	8.0	12.0	8.0	9.5	17.0	13.5	15.5
5	7.5	5.0	6.0	8.5	7.5	8.0	10.0	7.5	9.0	18.5	14.5	17.0
6	7.0	4.5	6.0	8.0	6.0	7.0	9.5	7.0	8.0	20.0	16.0	18.5
7	7.0	4.5	6.0	7.5	4.0	6.0	12.5	8.5	10.0	20.0	16.5	19.0
8	8.0	5.5	6.5	8.0	5.5	6.5	13.0	10.0	11.5	21.0	17.5	19.5
9	7.5	5.5	6.5	8.0	6.0	7.0	12.0	8.5	10.5	21.0	17.5	19.5
10	8.5	5.5	7.0	7.5	6.0	6.5	11.5	8.5	10.0	20.5	17.0	19.0
11	9.0	6.5	7.5	7.0	6.0	6.5	9.0	7.0	8.0	20.5	17.0	19.0
12	6.5	5.0	6.0	8.0	6.5	7.0	11.0	6.5	8.5	20.0	17.5	19.0
13	7.0	6.5	6.5	8.0	6.0	7.0	12.0	7.5	9.5	21.0	16.5	19.0
14	7.0	6.0	6.5	7.0	5.5	6.5	13.5	9.5	11.5	21.0	18.0	19.5
15	7.0	6.0	6.5	7.5	5.0	6.0	14.0	10.5	12.0	22.0	18.5	19.5
16	6.5	5.5	6.0	8.0	5.5	6.5	14.5	10.5	12.5	21.0	17.5	18.5
17	7.5	6.0	6.5	7.5	6.0	6.5	14.0	11.5	12.5	19.5	15.5	17.0
18	7.0	5.5	6.0	6.0	4.5	5.5	11.5	8.5	10.0	19.0	14.5	16.5
19	6.5	4.0	5.0	7.0	4.5	5.5	11.0	6.5	9.0	18.0	13.5	15.5
20	6.5	3.5	5.0	6.5	4.0	5.0	12.0	8.0	10.0	18.5	13.0	15.5
21	7.0	5.0	6.0	8.0	4.5	6.0	14.5	10.0	12.0	18.5	13.5	16.0
22	5.5	3.5	4.5	8.5	4.0	6.5	15.5	12.5	14.0	19.5	14.0	16.5
23	5.5	3.5	4.5	8.5	6.0	7.0	15.5	13.0	14.5	19.5	15.0	17.0
24	5.5	2.5	4.0	8.5	5.0	6.5	15.0	12.0	14.0	17.5	15.0	16.0
25	5.5	1.5	3.5	8.5	4.5	6.5	15.5	11.5	13.5	15.5	14.0	15.0
26	5.0	2.0	3.5	9.5	6.0	7.5	17.0	13.0	15.0	14.5	12.5	13.5
27	7.5	3.5	5.0	8.5	4.0	6.5	18.5	14.5	16.5	14.0	12.0	13.0
28	6.5	3.0	5.0	9.0	4.0	6.5	18.0	15.5	16.5	17.5	11.5	14.5
29	---	---	---	9.5	4.5	7.0	15.5	13.5	15.0	19.0	14.0	16.0
30	---	---	---	10.5	5.0	8.0	15.0	13.5	14.5	16.0	14.0	15.0
31	---	---	---	11.0	7.0	9.0	---	---	---	15.5	13.0	14.0
MONTH	9.0	1.5	6.0	11.0	4.0	6.5	18.5	6.5	11.5	22.0	10.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.0	12.0	14.5	28.0	22.5	25.0	26.0	18.0	21.0	24.0	20.0	22.0
2	21.0	14.0	17.0	28.0	21.0	24.5	27.0	18.0	22.0	21.5	18.5	20.5
3	23.0	16.5	19.5	28.0	20.0	23.5	28.0	19.0	23.0	20.5	17.5	19.0
4	24.5	18.5	21.0	25.0	19.5	22.5	28.0	20.0	23.5	21.0	16.5	19.0
5	24.5	18.5	21.0	25.0	18.0	21.5	27.5	19.0	23.0	21.5	16.5	19.0
6	25.0	17.5	20.5	25.5	17.5	21.5	26.5	18.5	22.0	21.0	16.5	19.0
7	20.5	18.0	19.5	26.0	18.0	22.0	27.5	18.5	22.5	20.5	16.5	18.5
8	24.0	18.0	20.5	26.5	19.5	23.0	28.0	19.5	23.5	20.5	17.0	18.5
9	22.5	18.5	20.5	24.5	18.5	21.5	28.0	19.5	23.5	20.5	16.0	18.5
10	24.5	17.0	20.0	26.5	20.0	23.0	27.0	19.5	23.0	20.0	16.5	18.5
11	25.5	17.0	20.5	27.5	19.0	23.5	25.5	17.5	21.5	20.0	15.5	18.0
12	26.5	18.0	21.5	28.5	20.0	24.0	25.5	18.0	21.5	20.0	15.0	17.5
13	27.5	19.0	22.5	29.5	21.0	25.5	24.0	18.5	20.5	19.0	16.0	17.5
14	25.0	20.5	22.0	29.5	22.0	26.0	23.0	17.5	20.0	19.0	14.5	17.0
15	20.5	17.5	18.5	27.5	22.5	25.0	24.0	16.5	20.0	18.5	15.5	17.0
16	18.0	16.0	17.0	23.5	19.5	21.5	24.0	16.5	20.0	16.5	13.0	15.5
17	22.0	14.5	17.5	20.0	16.5	17.5	24.0	16.5	20.5	18.5	13.0	15.5
18	23.5	15.5	19.0	16.5	15.5	16.0	25.0	18.0	21.0	19.0	13.5	16.0
19	25.5	16.5	20.0	18.5	14.0	16.0	25.0	18.5	21.5	17.5	13.0	15.5
20	22.5	19.0	20.0	20.5	17.0	18.5	25.0	18.0	21.5	18.0	13.0	15.5
21	20.5	17.5	19.0	19.0	17.0	18.0	24.0	18.0	21.0	19.0	14.0	16.5
22	24.0	15.0	19.0	18.0	16.0	17.0	21.0	18.5	20.0	19.5	14.5	17.0
23	24.5	16.0	20.0	19.0	14.5	16.5	24.0	17.5	20.5	18.5	15.0	17.0
24	26.5	16.5	21.0	20.0	16.5	18.5	24.0	17.5	21.0	17.5	15.5	16.5
25	28.0	18.5	23.0	21.5	18.0	19.5	24.0	18.0	21.5	17.5	14.5	16.5
26	29.0	20.0	24.5	23.0	18.0	20.5	24.0	18.5	21.5	17.5	14.5	16.0
27	29.5	21.0	24.5	24.0	18.0	20.5	24.5	18.5	22.0	16.5	12.5	15.0
28	29.5	20.5	25.0	24.0	18.0	20.5	25.0	19.0	22.0	17.0	12.5	15.0
29	29.0	21.0	25.0	25.0	18.5	21.0	25.0	19.5	22.5	16.5	13.0	15.0
30	29.5	21.5	25.5	23.5	19.0	20.5	25.5	19.5	22.5	18.5	13.0	15.5
31	---	---	---	25.0	17.5	20.5	25.0	20.5	23.5	---	---	---
MONTH	29.5	12.0	20.5	29.5	14.0	21.0	28.0	16.5	21.5	24.0	12.5	17.5
YEAR	29.5	.0	12.5									

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR

LOCATION.--Lat 42°31'30", long 122°50'30", in SE 1/4 sec.17, T.35 S., R.1 W., Jackson County, Hydrologic Unit 17100307, on right bank 50 ft upstream from Dodge Bridge, 0.7 mi downstream from Reese Creek, 4.3 mi northwest of Eagle Point, and at mile 138.61.

DRAINAGE AREA.--1,215 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1094: 1942(M), 1943, 1945(M), 1946. WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,271.39 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 21, 1938, nonrecording gage, Dec. 21, 1938, to Aug. 15, 1968, water-stage recorder, at datum 2.27 ft higher, Aug. 16, 1968, to Sept. 30, 1976, water-stage recorder, at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since February 1977 by Lost Creek Lake (station 14335040). Diversions for irrigation upstream from station; most of low flow of Big Butte Creek (station 14337500) is diverted near Butte Falls.

AVERAGE DISCHARGE.--49 years, 2,615 ft^3/s, 1,895,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,600 ft^3/s Dec. 22, 1964, gage height, 12.78 ft, datum then in use, from rating curve extended above 23,000 ft^3/s; minimum discharge, 567 ft^3/s Feb. 18, 1977, result of closure of Lost Creek dam, minimum prior to that time, 611 ft^3/s Aug. 6, 14, 29, Sept. 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,690 ft^3/s Feb. 2, gage height, 6.19 ft; minimum discharge, 958 ft^3/s Jan. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1380	1990	2040	2910	5030	1090	1620	2760	1770	2060	2090	2660
2	1370	1950	2150	2940	7830	1080	1600	2760	1580	2060	2090	2660
3	1350	2010	2110	2690	4970	1080	1580	2750	1540	2060	2090	2660
4	1380	2290	1960	2400	3550	1100	1570	2620	1540	2060	2060	2690
5	1390	2350	1760	1990	2890	1140	1530	2420	1540	2060	2070	2700
6	1390	2400	1760	1740	2130	1200	1500	2410	1530	2070	2050	2690
7	1390	2420	1730	1550	1540	1170	1450	2340	1540	2060	2060	2680
8	1390	2470	1700	1450	1410	1120	1240	2170	1550	2060	2060	2670
9	1390	2530	1680	1390	1330	1260	1030	2030	1540	2070	2050	2600
10	1400	2760	1660	1340	1250	1570	1150	1900	1540	2070	2050	2210
11	1380	2650	1650	1300	1250	1580	1460	1900	1610	2070	2050	1900
12	1370	2470	1610	1280	1230	1830	1440	1950	1860	2070	2050	1700
13	1370	1970	1530	1280	2570	2710	1430	1940	1860	2060	2060	1600
14	1370	1620	1580	1280	4040	3470	1390	1890	1840	2080	2070	1460
15	1330	1590	1550	1270	3190	3520	1380	1680	1870	2080	2070	1450
16	1300	1570	1520	1230	2960	3090	1580	1650	1870	2070	2070	1360
17	1310	1560	1510	1200	2670	2200	2290	1670	1880	2070	2090	1300
18	1360	1560	1500	1200	2360	2860	2370	1660	1880	2200	2070	1310
19	1330	1580	1500	1180	2180	3400	2370	1620	1870	2280	2100	1310
20	1320	1580	1500	1180	2040	3150	2300	1580	1840	2210	2090	1310
21	1300	1920	1490	1190	1940	2950	2150	1570	1850	2170	2390	1320
22	1290	3460	1530	1180	1850	2810	2160	1570	1870	2310	2480	1310
23	1280	3070	1680	1030	1760	2840	2360	1500	1870	2320	2480	1310
24	1280	3030	1690	2150	1390	2200	2470	1610	1870	2220	2460	1300
25	1280	3430	1700	5030	1280	2060	2460	1610	1870	2170	2480	1310
26	1280	3290	1680	5300	1210	1960	2440	1400	2010	2140	2490	1350
27	1300	3270	1640	3830	1160	1890	2430	1370	2050	2120	2480	1360
28	1310	3670	1600	4840	1120	1800	2440	1400	2050	2110	2570	1350
29	1300	2930	1580	3880	---	1740	2540	1440	2040	2110	2670	1360
30	1420	2170	1590	3210	---	1690	2740	1410	2040	2100	2670	1370
31	2010	---	1550	2240	---	1640	---	1650	---	2090	2670	---
TOTAL	42320	71560	51730	66680	68130	63200	56470	58230	53570	65680	69230	54260
MEAN	1365	2385	1669	2151	2433	2039	1882	1878	1786	2119	2233	1809
MAX	2010	3670	2150	5300	7830	3520	2740	2760	2050	2320	2670	2700
MIN	1280	1560	1490	1030	1120	1080	1030	1370	1530	2060	2050	1300
AC-FT	83940	141900	102600	132300	135100	125400	112000	115500	106300	130300	137300	107600

CAL YR 1986 TOTAL 929750 MEAN 2547 MAX 12600 MIN 1280 AC-FT 1844000
WTR YR 1987 TOTAL 721060 MEAN 1976 MAX 7830 MIN 1030 AC-FT 1430000

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1973 to current year.

INSTRUMENTATION.--Temperature recorder since August 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 20.0°C July 27, 28, 1975; minimum, 0.0°C Jan. 6-8, 10, 11, 1974, Jan. 6-9, 1977. Maximum since full operation of Lost Creek Lake, 19.5°C July 3, 1981; minimum, 1.0°C Feb. 4, 1985.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 17.5°C Aug. 2; minimum, 1.5°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.5	6.5	8.0	9.0	6.5	7.5	6.0	5.5	6.0	5.5	5.0	5.5
2	10.0	6.5	8.0	9.0	6.5	7.5	6.0	5.5	6.0	5.0	5.0	5.0
3	10.5	6.5	8.5	8.5	6.0	7.5	6.5	5.5	6.0	6.0	5.0	5.5
4	10.5	7.0	8.5	8.5	6.5	7.5	6.5	5.5	6.0	5.5	5.0	5.0
5	10.5	7.0	9.0	8.0	6.5	7.0	7.0	6.0	6.5	5.5	5.0	5.0
6	11.0	7.0	9.0	8.0	6.5	7.0	7.0	6.0	6.5	5.0	4.0	4.0
7	11.0	7.5	9.0	8.0	7.0	7.5	6.5	5.5	5.5	4.0	3.0	3.5
8	10.5	7.0	9.0	8.5	7.0	7.5	6.0	5.0	5.5	3.5	2.5	3.0
9	10.5	7.5	9.0	8.5	7.5	7.5	6.0	5.0	5.5	4.5	3.0	3.5
10	10.5	7.0	9.0	8.5	7.0	7.5	5.5	4.5	5.0	4.5	3.0	4.0
11	10.0	7.0	8.5	8.0	7.0	7.0	5.5	4.5	5.0	4.5	3.0	4.0
12	9.5	6.5	8.0	8.0	7.0	7.5	6.0	5.0	5.5	4.5	3.5	4.0
13	9.5	6.5	8.0	7.5	7.0	7.5	6.0	5.5	5.5	5.0	3.5	4.5
14	9.5	6.5	8.0	7.5	7.0	7.0	6.5	5.0	5.5	4.5	3.5	4.0
15	10.0	6.5	8.0	7.5	7.0	7.5	5.5	4.5	5.0	4.0	2.5	3.0
16	9.0	7.0	8.0	8.0	6.5	7.5	5.5	5.0	5.0	3.5	1.5	2.5
17	9.0	7.5	8.0	8.5	7.0	7.5	5.0	4.5	5.0	4.0	2.0	3.0
18	10.0	7.5	8.5	7.5	6.5	7.0	5.5	4.5	5.0	4.0	2.5	3.0
19	9.5	7.0	8.0	8.0	7.0	7.5	6.0	5.0	5.5	4.0	2.0	3.0
20	10.0	6.5	8.5	8.0	7.0	7.5	5.5	4.5	5.0	4.5	2.5	3.5
21	9.5	7.0	8.5	8.0	7.0	7.5	5.5	5.0	5.0	4.5	2.5	3.5
22	10.0	7.0	8.5	7.5	7.0	7.5	6.0	5.0	5.5	4.5	3.0	3.5
23	8.5	7.0	8.0	8.0	7.5	7.5	6.0	5.0	5.5	5.0	4.0	4.5
24	9.0	7.5	8.0	7.5	7.0	7.0	6.0	5.0	5.5	4.5	3.0	3.5
25	10.0	8.0	9.0	7.0	6.5	7.0	5.5	4.5	5.0	5.0	3.5	4.0
26	10.0	8.0	9.0	7.0	6.5	7.0	6.5	5.0	5.5	6.0	5.0	5.5
27	10.0	8.0	9.0	7.5	7.0	7.0	5.5	4.5	5.0	5.5	4.5	5.5
28	8.5	7.5	8.0	7.0	6.5	7.0	5.0	4.0	4.5	5.5	4.5	5.0
29	8.5	7.0	8.0	7.0	6.5	6.5	6.0	4.5	5.0	5.5	4.5	5.0
30	9.0	8.0	8.5	6.5	6.0	6.0	5.0	4.0	4.5	5.5	4.5	5.0
31	9.0	7.5	8.0	---	---	---	6.0	4.5	5.0	5.0	4.5	4.5
MONTH	11.0	6.5	8.5	9.0	6.0	7.5	7.0	4.0	5.5	6.0	1.5	4.0

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	5.0	5.0	6.0	4.5	5.5	10.5	6.0	8.0	10.0	7.0	8.5
2	6.0	5.0	5.5	7.0	5.0	6.0	10.0	6.0	8.0	9.0	7.5	8.0
3	6.5	5.0	5.5	7.0	6.0	6.5	8.5	6.5	7.5	12.0	8.0	9.5
4	5.5	4.5	5.0	7.5	6.0	7.0	10.0	6.5	8.0	13.0	8.0	10.0
5	6.0	4.5	5.0	7.5	6.5	7.0	9.5	6.0	7.5	13.0	8.0	10.5
6	6.0	4.0	5.0	8.0	5.5	6.5	8.0	5.5	7.0	13.5	8.5	10.5
7	6.0	4.5	5.0	7.0	4.5	6.0	10.5	6.5	8.5	13.5	8.5	10.5
8	6.5	5.0	6.0	7.5	5.5	6.5	11.5	7.5	9.5	14.0	8.5	11.0
9	6.5	5.0	5.5	7.5	6.0	6.5	11.5	7.0	9.0	14.0	9.0	11.0
10	7.0	5.5	6.5	6.5	5.0	6.0	10.0	7.0	8.0	14.0	8.5	11.0
11	7.5	5.5	6.5	6.0	5.0	5.5	8.5	6.0	7.5	13.5	9.0	11.0
12	6.0	4.5	5.5	6.5	5.5	6.0	10.5	5.5	8.0	13.5	9.0	11.0
13	6.0	5.5	6.0	7.0	5.5	6.0	10.5	6.0	8.5	14.5	8.5	11.0
14	6.0	5.0	5.5	6.5	5.5	5.5	12.0	6.5	9.0	14.0	9.0	11.0
15	6.0	5.0	5.5	6.5	5.0	5.5	12.0	7.0	9.5	14.5	9.5	11.0
16	6.0	5.0	5.5	7.0	5.0	6.0	11.5	7.0	9.0	14.0	9.0	11.5
17	6.5	5.0	6.0	6.5	6.0	6.0	9.5	7.0	8.0	14.0	8.5	11.0
18	6.5	5.0	5.5	6.5	5.0	5.5	8.5	6.0	7.0	14.0	8.0	11.0
19	6.0	4.0	5.0	7.0	4.5	5.5	10.0	5.5	7.5	14.0	8.0	10.5
20	6.0	3.5	5.0	6.0	4.5	5.0	10.0	6.0	8.0	14.0	8.0	10.5
21	6.5	4.5	5.5	7.0	5.0	6.0	12.0	7.5	9.5	14.0	7.5	10.0
22	5.5	4.0	4.5	7.5	4.5	6.0	12.0	8.0	9.5	14.5	8.5	11.5
23	6.0	3.5	4.5	7.5	5.5	6.5	11.5	8.0	9.5	14.0	9.0	11.0
24	6.0	3.5	4.5	8.5	5.0	6.5	12.0	7.5	9.5	12.5	9.0	11.0
25	5.5	3.0	4.5	8.0	5.0	6.5	12.0	7.5	9.5	11.5	9.0	10.5
26	5.5	3.0	4.5	8.5	5.5	7.0	12.0	8.0	9.5	11.0	9.0	10.0
27	7.0	4.5	5.5	8.5	4.5	6.5	12.0	8.0	10.0	11.5	8.5	10.0
28	7.0	4.0	5.5	8.5	4.5	6.5	11.0	8.5	9.5	14.5	8.5	11.0
29	---	---	---	9.0	5.0	7.0	11.0	8.0	9.0	14.5	9.0	11.5
30	---	---	---	9.5	5.0	7.0	10.5	7.5	9.0	11.0	9.5	10.0
31	---	---	---	9.5	5.5	7.5	---	---	---	12.5	9.0	10.5
MONTH	7.5	3.0	5.5	9.5	4.5	6.0	12.0	5.5	8.5	14.5	7.0	10.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	8.5	11.0	14.0	9.5	11.5	16.5	10.5	13.0	14.5	11.5	13.0
2	15.5	9.0	12.0	14.5	9.5	12.0	17.5	11.0	14.0	13.5	10.5	12.0
3	15.0	9.5	12.5	14.5	9.0	11.5	17.0	11.5	14.0	13.5	11.0	12.0
4	15.5	10.0	12.5	14.5	8.5	11.5	17.0	11.5	14.0	14.0	10.5	12.0
5	15.5	10.0	12.5	14.0	9.0	11.5	17.0	11.5	13.5	14.0	10.0	11.5
6	16.0	9.5	12.5	14.0	8.5	11.0	16.5	11.5	14.0	13.5	10.0	11.5
7	12.5	9.5	11.0	13.5	8.5	11.0	17.0	11.5	14.0	13.5	10.5	12.0
8	15.0	9.5	12.0	14.5	8.5	11.0	17.0	12.0	14.0	13.5	10.0	11.5
9	14.0	9.5	11.5	13.5	8.5	11.0	17.0	12.0	14.5	12.5	9.5	10.5
10	15.0	8.5	11.5	14.0	9.0	11.5	17.0	12.0	14.0	12.5	9.5	11.0
11	15.5	9.0	12.0	14.5	8.5	11.5	17.0	11.5	14.0	13.5	9.0	11.5
12	15.0	9.0	12.0	14.5	9.0	11.5	17.0	12.0	14.0	14.0	9.5	11.5
13	15.5	9.5	12.0	15.0	9.0	12.0	16.0	12.0	14.0	13.5	10.0	11.5
14	13.5	10.0	11.5	15.0	9.0	12.0	16.0	12.0	14.0	14.5	10.0	11.5
15	11.0	9.5	10.0	15.5	10.0	12.5	16.5	12.0	14.0	10.5	7.0	8.5
16	11.5	9.5	10.0	13.5	10.0	11.5	17.0	12.0	14.0	10.5	6.0	8.0
17	14.5	9.0	11.5	11.5	10.0	11.0	17.0	12.0	14.0	10.5	6.0	8.0
18	14.0	9.0	11.5	11.5	10.5	11.0	17.0	12.0	14.5	10.5	6.0	8.0
19	14.0	8.5	11.0	15.5	11.0	12.5	17.0	11.0	14.5	10.0	6.0	8.0
20	12.5	9.0	10.5	15.0	10.5	12.5	16.0	12.5	14.0	10.0	6.0	8.0
21	12.0	9.0	10.0	12.5	11.0	11.5	15.5	11.0	13.0	10.5	6.0	8.5
22	14.0	8.0	10.5	14.5	11.0	12.5	14.0	11.0	12.5	11.0	6.5	8.5
23	14.0	8.5	11.0	15.0	11.0	---	15.5	11.5	13.0	10.0	6.5	8.0
24	14.5	8.5	11.0	16.0	11.0	13.0	16.0	11.5	13.5	9.5	6.5	8.0
25	14.5	8.5	11.5	15.5	11.0	13.0	16.0	11.5	13.5	10.0	6.0	8.0
26	14.5	9.0	11.5	16.0	10.5	13.0	16.0	11.5	13.5	10.0	6.5	8.0
27	15.0	9.0	11.5	16.0	10.5	13.0	16.5	12.0	14.0	10.0	6.0	7.5
28	15.0	9.0	11.5	15.5	10.5	13.0	16.5	12.0	13.5	10.0	6.0	8.0
29	14.5	9.0	12.0	15.5	11.0	13.0	15.5	11.0	13.0	10.0	6.0	8.0
30	15.0	9.0	12.0	14.5	11.0	12.5	15.5	11.5	13.5	10.0	6.0	8.0
31	---	---	---	15.5	11.0	13.0	15.5	12.0	13.5	---	---	---
MONTH	16.0	8.0	11.5	16.0	8.5	---	17.5	10.5	14.0	14.5	6.0	9.5
YEAR	17.5	1.5	---									

14342500 NORTH FORK LITTLE BUTTE CREEK AT FISH LAKE, NEAR LAKECREEK, OR

LOCATION.--Lat 42°22'35", long 122°21'20", in SE 1/4 SW 1/4 sec.4, T.37 S., R.4 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.5 mi downstream from Fish Lake dam, 14 mi east of Lakecreek, and at mile 15.2.

DRAINAGE AREA.--20.8 mi^2.

PERIOD OF RECORD.--October 1914 to July 1915, June 1916 to current year. Monthly discharge only November 1916 to May 1917, published in WSP 1318.

REVISED RECORDS.--WSP 654: Drainage area (former site). WSP 1218: 1917(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,571.41 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1914, to July 31, 1915, nonrecording gage at site 0.5 mi upstream at different datum. June 1, 1916, to July 9, 1918, nonrecording gage and July 10, 1918, to Oct. 28, 1932, water-stage recorder at site 0.25 mi upstream at different datums.

REMARKS.--Estimated daily discharges: Oct. 26 to Dec. 23. Records good. Since 1915, Fish Lake (see below) has stored water for irrigation by Medford Irrigation District. Cascade Canal diverts from Fourmile Lake in Klamath River basin and discharges into lava bed 1.0 mi upstream from Fish Lake; diversion began August 1923. No diversion from creek upstream from station.

AVERAGE DISCHARGE.--71 years (water years 1917-87), 36.1 ft^3/s, 26,150 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 940 ft^3/s June 5, 1917, computed from rate of change in contents of reservoir after break in dam occurred; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 106 ft^3/s July 17, gage height, 1.70 ft; minimum discharge, 1.7 ft^3/s Sept. 17-26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	14	16	18	19	19	22	27	26	90	76	65
2	9.9	14	16	18	19	19	22	27	26	90	79	65
3	10	14	17	18	19	19	23	27	26	88	79	63
4	10	14	17	18	19	19	23	27	40	84	78	63
5	10	14	17	18	19	19	23	27	54	61	78	62
6	11	14	17	18	19	19	23	27	54	61	78	61
7	11	15	17	18	19	19	23	27	54	61	77	61
8	11	15	17	18	19	19	24	27	54	71	76	60
9	11	15	17	18	19	19	24	26	54	79	76	60
10	11	15	17	18	19	19	25	26	54	87	75	58
11	11	15	17	18	19	20	25	26	54	95	74	58
12	11	15	17	18	19	20	25	26	54	98	74	56
13	12	15	17	18	19	20	25	26	54	103	73	56
14	12	16	17	18	19	20	25	26	54	102	72	23
15	12	16	17	18	19	20	26	26	54	103	72	1.8
16	12	16	17	18	19	20	26	26	54	104	70	1.8
17	13	16	17	18	19	21	26	26	54	103	70	1.8
18	13	16	17	18	19	21	26	26	62	100	69	1.7
19	13	16	17	18	19	21	26	26	69	98	74	1.7
20	13	16	17	18	19	21	26	26	69	98	76	1.7
21	13	16	17	18	20	21	26	25	69	95	76	1.7
22	13	16	17	18	20	21	26	25	72	77	74	1.7
23	13	16	17	18	20	21	27	26	74	69	74	1.7
24	13	16	17	18	20	21	27	26	74	69	72	1.7
25	13	16	17	19	20	21	27	26	87	69	72	1.8
26	13	16	17	19	20	21	27	26	95	69	70	1.8
27	13	16	17	19	19	21	27	26	93	69	70	1.8
28	13	16	17	19	19	21	27	26	92	69	69	1.8
29	13	16	17	19	---	21	27	26	92	69	68	1.8
30	14	16	17	19	---	21	27	26	91	69	67	1.8
31	14	---	17	19	---	21	---	26	---	73	67	---
TOTAL	371.5	461	525	565	538	625	756	812	1859	2573	2275	839.1
MEAN	12.0	15.4	16.9	18.2	19.2	20.2	25.2	26.2	62.0	83.0	73.4	28.0
MAX	14	16	17	19	20	21	27	27	95	104	79	65
MIN	9.6	14	16	18	19	19	22	25	26	61	67	1.7
AC-FT	737	914	1040	1120	1070	1240	1500	1610	3690	5100	4510	1660
(†)	4380	a4820	a5270	5510	a5600	5700	a5900	a6050	a5720	a4600	a2730	a2220

CAL YR 1986 TOTAL 13992.7 MEAN 38.3 MAX 112 MIN 9.6 AC-FT 27750
WTR YR 1987 TOTAL 12199.6 MEAN 33.4 MAX 104 MIN 1.7 AC-FT 24200

† Monthend contents, in acre-feet, of Fish Lake.
a Interpolated.

14357500 BEAR CREEK AT MEDFORD, OR

LOCATION.--Lat 42°19'40", long 122°52'10", in NW 1/4 sec.30, T.37 S., R.1 W., Jackson County, Hydrologic Unit 17100308, on left bank 40 ft upstream from Main street Bridge, in Medford, and at mile 9.91.

DRAINAGE AREA.--289 mi^2.

PERIOD OF RECORD.--March 1915 to June 1920 (no low-flow records), October 1920 to September 1981, December 1983 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1044: 1944. WSP 1448: 1916, 1917(M), 1918-20, 1922, 1924, 1927(M), 1928, 1930. WSP 1568: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,341.98 ft above National Geodetic Vertical Datum of 1929. Dec. 31, 1947, to Sept. 23, 1985, at datum 2.00 ft higher. See WSP 1738 for history of changes prior to Dec. 31, 1947.

REMARKS.--Estimated daily discharges: Feb. 14 to Mar. 30. Records good except for estimated daily discharges, which are poor. Flow partly regulated since 1924 by Emigrant Lake. Numerous diversions for irrigation and municipal use upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft^3/s Dec. 2, 1962, gage height, 10.04 ft, present datum; maximum gage height, about 13.0 ft Feb. 20, 1927, from floodmarks, present datum, site then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 637 ft^3/s Feb. 1, gage height, 4.04 ft; minimum discharge, 17 ft^3/s June 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	42	59	138	265	52	83	59	70	26	44	37
2	43	40	58	129	265	54	77	75	56	26	41	35
3	44	38	62	218	149	56	82	83	51	29	44	44
4	42	36	65	119	109	54	71	69	44	34	41	51
5	40	35	70	81	93	58	66	53	44	41	38	53
6	39	39	65	65	82	60	62	49	50	39	33	54
7	37	70	55	55	76	58	60	40	57	42	41	54
8	36	67	49	49	72	52	55	46	73	36	41	54
9	35	57	48	49	69	50	54	52	69	26	41	52
10	32	57	45	46	67	54	57	55	64	26	40	50
11	31	55	43	46	87	56	57	60	56	35	33	49
12	29	50	41	47	91	52	55	52	49	35	33	50
13	29	47	42	46	126	60	38	55	44	35	39	48
14	29	42	40	44	150	74	39	53	49	34	40	53
15	28	44	39	41	120	95	38	61	57	31	39	53
16	29	40	38	33	85	96	34	68	52	33	48	49
17	39	38	36	37	75	88	28	74	51	85	50	49
18	38	39	36	40	72	120	37	63	50	142	36	49
19	35	38	36	37	70	160	34	66	46	118	37	46
20	34	41	36	36	68	140	36	58	40	89	31	45
21	33	69	35	36	72	120	30	53	46	87	37	44
22	33	189	51	37	68	100	27	43	48	181	45	42
23	32	97	51	43	62	84	29	47	49	125	54	41
24	31	78	47	95	58	100	26	94	42	78	50	41
25	29	87	43	126	56	100	24	139	41	66	41	42
26	30	62	40	117	54	96	23	107	37	63	37	42
27	37	57	39	122	52	84	27	90	34	58	41	42
28	31	175	38	174	52	76	28	72	33	48	48	42
29	51	118	37	106	---	72	35	57	33	42	42	41
30	70	70	37	87	---	70	42	56	26	44	35	40
31	49	---	39	75	---	65	---	75	---	46	39	---
TOTAL	1142	1917	1420	2374	2665	2456	1354	2024	1461	1800	1259	1392
MEAN	36.8	63.9	45.8	76.6	95.2	79.2	45.1	65.3	48.7	58.1	40.6	46.4
MAX	70	189	70	218	265	160	63	139	73	181	54	54
MIN	28	35	35	33	52	50	23	40	26	26	31	35
AC-FT	2270	3800	2820	4710	5290	4870	2690	4010	2900	3570	2500	2760

CAL YR 1986 TOTAL 37754 MEAN 103 MAX 1640 MIN 28 AC-FT 74890
WTR YR 1987 TOTAL 21264 MEAN 58.3 MAX 265 MIN 23 AC-FT 42180

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR

LOCATION.--Lat 42°26'15", long 122°59'10", in SW 1/4 sec.18, T.36 S., R.2 W., Jackson County, Hydrologic Unit 17100308, on right bank at Raygold, 0.1 mi downstream from Gold Ray Dam, 1.0 mi downstream from Bear Creek, 5.6 mi northwest of Central Point, and at mile 125.8.

DRAINAGE AREA.--2,053 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1905 to current year. Prior to October 1921, published as "near Tolo."

REVISED RECORDS.--WSP 1248: 1906, 1914(M), 1915. WSP 1398: 1910(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,121.78 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1914, nonrecording gage and Sept. 19, 1914, to Sept. 30, 1956, water-stage recorder, at site 300 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 25, 26, Feb. 1, 2. Water-discharge records good except for estimated daily discharges, which are fair. Flow regulated since February 1977 by Lost Creek Lake (station 14335040). Slight regulation by Fish Lake (published with station 14342500) and Emigrant Lake. Many diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--82 years, 2,988 ft^3/s, 2,165,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 131,000 ft^3/s Dec. 23, 1964, gage height, 23.43 ft, from rating curve extended above 63,000 ft^3/s on basis of slope-area measurement of 113,000 ft^3/s; minimum discharge not determined; minimum daily, 616 ft^3/s Sept. 6, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,300 ft^3/s Feb. 2; maximum gage height, 7.06 ft Feb. 2, from floodmark; minimum discharge, 1,180 ft^3/s Jan. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1590	2220	2440	3890	5540	1510	2100	2890	1960	2030	2150	2630
2	1570	2160	2510	4570	10500	1490	2070	2950	1700	2040	2140	2630
3	1540	2190	2450	4020	6720	1500	2130	2960	1650	2040	2120	2660
4	1560	2460	2330	3310	4750	1540	2080	2800	1630	2050	2070	2690
5	1530	2510	2130	2550	3880	1560	2020	2520	1620	2100	2060	2700
6	1530	2560	2140	2180	2890	1680	1970	2500	1630	2100	2030	2710
7	1520	2660	2090	1940	2210	1610	1890	2430	1630	2060	2050	2720
8	1530	2750	2030	1790	1970	1570	1630	2250	1700	2070	2050	2710
9	1520	2760	2000	1710	1850	1650	1400	2140	1670	2050	2040	2680
10	1530	3000	1970	1640	1750	1970	1490	2010	1660	2040	2040	2320
11	1500	2880	1950	1600	1700	2010	1890	2030	1680	2040	2030	2010
12	1500	2730	1920	1580	1770	2240	1810	2030	1950	2050	2020	1790
13	1490	2240	1840	1600	3240	3170	1740	2020	1920	2030	2050	1720
14	1490	1880	1890	1590	6230	4010	1700	1980	1900	2020	2070	1590
15	1470	1840	1840	1570	4270	4360	1670	1760	1970	2020	2070	1560
16	1480	1810	1810	1480	3830	3850	1750	1760	1980	2020	2070	1440
17	1510	1790	1780	1470	3470	2830	2460	1780	2000	2090	2110	1420
18	1530	1800	1770	1470	3070	3930	2590	1770	1960	2600	2080	1440
19	1500	1820	1790	1440	2800	4740	2600	1720	1930	2630	2080	1420
20	1490	1830	1780	1440	2600	4180	2520	1670	1890	2400	2070	1430
21	1480	2360	1760	1440	2520	3730	2330	1660	1920	2320	2320	1430
22	1470	4630	1880	1440	2400	3450	2300	1640	1940	2960	2440	1410
23	1470	3890	2030	1250	2360	3690	2480	1570	1900	2670	2460	1400
24	1480	3410	2010	3160	1940	3060	2590	1830	1900	2410	2460	1400
25	1480	4010	2010	5800	1770	2750	2560	1860	1880	2320	2450	1430
26	1480	3720	1950	6930	1660	2570	2520	1610	2010	2270	2460	1460
27	1550	3640	1900	4610	1600	2410	2510	1580	2050	2220	2450	1460
28	1530	4790	1860	6340	1540	2300	2490	1590	2040	2170	2510	1450
29	1570	4180	1850	4830	---	2230	2580	1590	2030	2150	2630	1450
30	1830	2730	1860	4030	---	2160	2820	1540	2010	2140	2640	1450
31	2260	---	1790	2850	---	2090	---	1890	---	2140	2640	---
TOTAL	47980	83250	61360	85520	90830	81840	64690	62330	55710	68250	68860	56610
MEAN	1548	2775	1979	2759	3244	2640	2156	2011	1857	2202	2221	1887
MAX	2260	4790	2510	6930	10500	4740	2820	2960	2050	2960	2640	2720
MIN	1470	1790	1760	1250	1540	1490	1400	1540	1620	2020	2020	1400
AC-FT	95170	165100	121700	169600	180200	162300	128300	123600	110500	135400	136600	112300

CAL YR 1986 TOTAL 1097840 MEAN 3008 MAX 22400 MIN 1470 AC-FT 2178000
WTR YR 1987 TOTAL 827230 MEAN 2266 MAX 10500 MIN 1250 AC-FT 1641000

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1973 to current year.

INSTRUMENTATION.--Temperature recorder since August 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 22.0°C July 25, 26, 1976; minimum, 0.0°C Jan. 7, 1974. Maximum since full operation of Lost Creek Lake, 20.5°C July 3, 4, 1981; minimum, 1.0°C Dec. 30, 1978, Jan. 30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 18.0°C Aug. 3, 4, 7-10; minimum, 1.5°C Jan. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.5	9.0	9.5	9.0	7.0	8.0	6.0	5.5	5.5	6.0	5.5	6.0
2	10.5	8.5	9.5	8.5	7.0	7.5	5.5	5.5	5.5	5.5	5.0	5.0
3	10.5	9.0	9.5	8.5	6.5	7.5	6.0	5.5	5.5	6.0	5.0	5.5
4	[illegible]	9.0	10.0	8.5	6.5	7.5	6.0	5.5	5.5	5.5	5.0	5.5
5	11.0	9.5	10.5	8.0	6.5	7.5	7.0	6.0	6.0	5.5	5.0	5.5
6	11.0	9.5	10.5	8.0	6.5	7.0	7.5	6.5	7.0	5.0	4.0	4.5
7	11.5	10.0	10.5	7.5	7.0	7.5	7.0	5.5	6.0	4.0	3.0	3.5
8	11.0	9.5	10.5	8.5	6.5	7.5	5.5	5.0	5.0	3.5	2.5	3.0
9	11.0	9.5	10.5	8.5	7.5	8.0	5.5	5.0	5.0	4.0	3.0	3.5
10	11.0	9.5	10.0	8.5	7.5	8.0	5.5	4.5	5.0	4.5	3.0	3.5
11	11.0	9.0	10.0	8.0	7.0	7.0	4.5	4.0	4.5	4.5	3.0	3.5
12	10.5	8.5	9.0	7.5	7.0	7.5	5.5	4.5	5.0	4.5	3.5	4.0
13	10.0	8.0	9.0	7.5	7.0	7.5	6.0	5.0	5.5	5.0	4.0	4.0
14	9.5	8.0	9.0	7.5	7.0	7.5	6.0	5.5	5.5	4.5	4.0	4.5
15	10.0	8.5	9.0	7.5	7.5	7.5	6.0	4.5	5.0	4.0	2.5	3.0
16	10.0	8.0	9.0	8.0	7.0	7.5	5.0	5.0	5.0	3.0	1.5	2.5
17	9.5	8.5	9.0	8.5	7.0	7.5	5.0	4.5	5.0	3.0	2.0	2.5
18	10.5	8.5	9.5	8.0	6.5	7.0	---	4.5	---	3.5	2.5	3.0
19	10.0	8.5	9.0	8.0	7.0	7.5	---	---	---	3.0	2.0	2.5
20	9.5	8.0	9.0	8.0	7.5	7.5	---	---	---	3.5	2.0	3.0
21	9.5	8.5	9.0	8.5	7.5	8.0	---	---	---	3.5	2.5	3.0
22	10.0	8.5	9.0	8.0	7.5	7.5	6.0	5.0	5.5	4.0	3.5	3.5
23	9.5	8.0	8.5	8.0	7.5	8.0	6.0	5.5	5.5	5.0	4.0	4.5
24	9.5	8.0	8.5	7.5	7.0	7.0	6.0	5.5	5.5	5.0	3.5	4.0
25	10.5	9.0	9.5	7.0	6.5	6.5	5.5	5.0	5.0	5.0	4.0	4.5
26	10.5	9.5	10.0	7.0	6.5	6.5	6.0	5.0	5.5	6.5	5.0	6.0
27	11.0	10.0	10.5	7.5	7.0	7.0	5.5	4.5	5.0	6.0	5.5	6.0
28	10.5	8.5	9.0	7.0	6.5	7.0	5.0	4.0	4.5	5.5	5.0	5.5
29	9.0	8.0	8.5	7.0	6.0	6.5	6.0	4.5	5.0	5.5	5.0	5.5
30	9.5	8.5	9.0	6.5	5.5	6.0	5.5	4.0	4.5	6.0	5.0	5.5
31	9.5	8.0	9.0	---	---	---	6.0	4.5	5.0	5.5	5.0	5.0
MONTH	11.5	8.0	9.5	9.0	5.5	7.5	---	---	---	6.5	1.5	4.0

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	5.5	7.5	6.0	6.5	12.0	9.0	10.5	12.0	9.0	10.5
2	6.5	5.5	6.0	8.0	6.5	7.0	12.0	9.5	11.0	11.0	9.0	10.0
3	7.0	6.0	6.5	9.0	8.0	8.0	11.5	10.0	11.0	14.0	9.5	11.5
4	6.5	5.0	5.5	9.5	8.0	9.0	12.0	9.5	10.5	14.5	10.0	12.5
5	6.5	5.0	6.0	9.0	8.5	9.0	11.5	9.5	10.5	15.0	10.5	13.0
6	6.5	5.0	6.0	9.0	7.5	8.5	11.0	9.0	10.0	15.5	11.0	13.5
7	6.0	5.0	5.5	8.5	6.5	7.5	12.5	9.5	10.5	15.5	11.5	13.5
8	7.5	6.0	6.5	8.5	7.5	8.0	13.5	11.5	12.5	16.0	11.5	13.5
9	7.0	6.0	6.5	9.0	7.5	8.5	13.0	11.0	12.0	15.5	12.0	14.0
10	8.0	6.5	7.0	9.0	7.0	8.0	13.0	10.5	11.5	16.0	11.5	14.0
11	8.5	7.5	8.0	8.0	7.0	7.5	11.5	8.5	10.0	15.5	12.0	14.0
12	8.0	6.0	7.0	8.5	7.5	8.0	12.0	8.5	10.0	15.5	12.0	14.0
13	7.0	6.5	7.0	8.5	7.0	8.0	12.5	9.5	10.5	16.0	12.0	14.0
14	6.5	6.0	6.5	8.0	7.0	7.5	13.5	10.5	12.0	16.0	12.0	14.0
15	7.0	6.0	6.5	8.0	6.0	7.0	14.0	11.0	12.5	15.5	12.5	14.5
16	6.5	5.5	6.0	8.5	6.5	7.5	14.0	11.5	12.5	15.5	13.0	14.5
17	7.5	6.0	6.5	8.5	7.5	8.0	13.0	10.0	11.0	15.5	12.0	13.5
18	7.5	6.5	7.0	8.0	7.0	7.5	10.5	8.0	9.5	15.0	11.5	13.5
19	7.0	5.0	6.0	8.0	6.0	7.0	11.5	7.5	9.5	15.0	11.0	13.0
20	6.5	5.0	6.0	7.5	6.0	6.5	12.0	8.0	10.0	15.0	11.5	13.0
21	7.0	6.0	6.5	8.5	6.5	7.5	13.5	9.5	11.5	15.0	11.0	13.0
22	6.5	5.0	5.5	9.0	6.0	7.5	13.5	10.5	12.0	15.5	12.5	13.5
23	6.0	5.0	5.5	9.0	7.5	8.5	13.5	10.0	12.0	15.5	13.0	14.0
24	6.5	5.0	5.5	10.0	7.0	8.5	13.5	9.5	12.0	14.5	12.0	13.5
25	6.0	4.5	5.5	10.0	7.5	8.5	13.5	9.5	11.5	14.0	12.0	12.5
26	6.0	4.5	5.0	10.5	8.0	9.5	14.0	10.0	12.0	13.0	11.5	12.0
27	8.0	6.0	6.5	10.0	7.0	8.5	14.5	10.5	12.5	13.5	11.0	12.0
28	7.5	6.5	7.0	10.0	7.0	8.5	13.5	10.5	12.0	15.0	11.5	13.0
29	---	---	---	10.5	7.5	9.0	12.5	10.0	11.5	15.0	13.0	14.0
30	---	---	---	11.0	8.0	9.5	12.0	10.0	11.0	15.0	12.0	13.5
31	---	---	---	11.5	9.0	10.0	---	---	---	15.0	11.5	13.0
MONTH	8.5	4.5	6.0	11.5	6.0	8.0	14.5	7.5	11.0	16.0	9.0	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	11.0	13.0	16.5	13.0	14.5	17.0	13.0	15.0	16.0	13.0	14.5
2	16.5	12.5	14.5	16.5	12.0	14.0	17.5	13.5	15.5	15.0	12.0	13.0
3	17.0	14.0	15.5	16.0	12.0	14.5	18.0	14.0	16.0	14.0	12.0	13.0
4	17.5	14.0	16.0	16.0	12.0	14.0	18.0	14.0	16.0	14.5	11.5	13.0
5	17.0	14.0	15.5	15.5	11.5	13.5	17.5	14.0	16.0	14.5	11.0	13.0
6	17.5	14.0	15.5	15.5	11.5	13.5	17.5	13.5	15.5	14.0	11.5	12.5
7	17.5	13.0	14.5	15.5	11.0	13.5	18.0	13.5	16.0	14.0	11.5	12.5
8	17.0	12.5	14.5	15.5	12.0	14.0	18.0	14.0	16.0	14.0	11.5	12.5
9	17.0	13.5	15.0	15.5	11.0	13.5	18.0	14.0	16.5	13.0	10.0	11.5
10	16.5	12.5	14.5	15.5	11.5	13.5	18.0	14.0	16.0	13.0	10.5	12.0
11	17.0	13.5	15.0	16.0	11.5	13.5	17.5	13.5	15.5	14.0	11.0	12.5
12	17.0	12.5	15.0	16.5	11.5	14.0	17.5	13.5	15.5	14.0	11.5	13.0
13	17.0	13.0	15.0	16.5	12.5	14.5	17.0	14.0	15.5	14.0	11.5	12.5
14	17.0	13.5	15.0	16.5	12.0	14.5	16.5	13.5	15.0	14.5	12.5	13.0
15	15.5	12.0	13.0	16.5	13.0	15.0	17.0	13.5	15.5	14.5	11.0	12.0
16	12.5	11.0	12.0	16.0	12.0	13.5	17.0	13.5	15.5	11.5	9.5	10.5
17	15.5	11.0	13.0	14.0	11.0	12.0	17.5	13.5	15.5	11.0	9.5	10.5
18	16.0	12.0	14.0	12.5	12.0	12.0	17.5	14.0	16.0	11.5	9.5	10.5
19	16.0	11.5	14.0	16.5	12.0	14.0	17.5	14.0	16.0	11.0	9.5	10.0
20	15.5	11.5	13.5	16.5	12.5	14.5	17.5	14.0	16.0	11.0	9.5	10.0
21	14.0	11.5	12.5	16.0	12.5	13.5	16.5	12.5	14.5	11.5	9.5	10.5
22	15.0	10.5	12.5	16.0	12.5	14.0	16.0	12.5	14.0	11.5	10.0	10.5
23	15.5	11.0	13.5	16.5	13.0	14.0	16.5	12.5	14.0	11.5	9.5	10.5
24	16.0	11.5	14.0	17.0	13.0	15.0	16.5	13.0	15.0	10.5	10.0	10.0
25	16.0	12.0	14.5	17.0	13.5	15.5	16.5	13.0	15.0	11.0	9.5	10.0
26	16.5	12.0	14.5	17.0	13.0	15.0	17.0	13.0	15.0	11.0	10.0	10.5
27	16.5	12.0	14.5	16.5	13.0	15.0	17.0	13.0	15.0	11.0	9.0	10.0
28	16.5	12.0	14.5	16.5	13.0	15.0	17.0	13.5	15.5	10.5	9.0	10.0
29	16.5	12.5	14.5	16.5	13.0	15.0	16.5	12.5	14.5	10.5	9.0	10.0
30	17.0	12.5	14.5	16.0	13.0	14.5	16.5	12.5	14.5	11.0	9.5	10.0
31	---	---	---	17.0	13.0	15.0	16.5	13.0	15.0	---	---	---
MONTH	17.5	10.5	14.5	17.0	11.0	14.0	18.0	12.5	15.5	16.0	9.0	11.5

14361500 ROGUE RIVER AT GRANTS PASS, OR

LOCATION.--Lat 42°25'50", long 123°19'00", in NW 1/4 sec.20, T.36 S., R.5 W., Josephine County, Hydrologic Unit 17100308, on right bank at city of Grants Pass filter plant, 0.6 mi upstream from bridge on State Highway 99 at Grants Pass, and at mile 101.8. Prior to Sept. 3, 1983, at site 300 ft upstream.

DRAINAGE AREA.--2,459 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 884.28 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 8, 1957, at site 300 ft upstream at datum 4.00 ft higher and Aug. 8, 1957, to Sept. 2, 1983, at site 300 ft upstream at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 10-15. Water-discharge records good. Flow regulated since February 1977 by Lost Creek Lake (station 14355040), slight regulation by Fish Lake and Emigrant Lake. Large fluctuations at times caused by Savage Rapids Dam 5.5 mi upstream from station. Many diversions from Rogue River and tributaries upstream from station, the largest of which is at Savage Rapids Dam of Grants Pass Irrigation District, 5.5 mi upstream from station.

AVERAGE DISCHARGE.--49 years, 3,518 ft^3/s, 2,549,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 152,000 ft^3/s Dec. 23, 1964, gage height, 35.15 ft, present datum, from rating curve extended above 93,000 ft^3/s; minimum discharge, 195 ft^3/s Jan. 30, 1961; minimum daily, 606 ft^3/s Sept. 10, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1861 reached a stage of about 43 ft, present datum (information furnished by Corps of Engineers). Flood in February 1890 reached a stage of about 36 ft, present datum, and that of Feb. 21, 1927, about 32 ft, present datum, according to local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,600 ft^3/s Feb. 2, gage height, 10.79 ft; minimum discharge, 1,050 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	2570	2850	4040	7820	1810	2400	3080	2020	2170	2270	2830
2	1690	2510	2890	6680	18400	1760	2510	2910	1790	2210	2270	2860
3	1660	2470	2770	5230	9460	1770	2670	2960	1780	2210	2250	2890
4	1690	2600	2580	4640	6200	1790	2600	2840	1700	2210	2180	2920
5	1660	2850	2150	3370	4980	1800	2610	2520	1600	2290	2170	2910
6	1870	2930	2210	2810	3680	1990	2620	2440	1600	2310	2140	2910
7	1640	3100	2170	2390	2860	1920	2460	2400	1640	2260	2130	2940
8	1670	3150	2180	2180	2420	1870	2160	2180	1830	2340	2140	2900
9	2020	3260	2220	2070	2240	1890	1890	2100	1820	2310	2130	2970
10	1900	3420	2160	1970	2080	2240	1710	1860	1810	2270	2170	2580
11	1800	3340	2120	1950	2060	2320	1810	1840	1680	2210	2170	2170
12	1700	3290	2150	1890	2080	2530	2300	1880	2000	2240	2140	1900
13	1600	2560	2070	1860	3520	3640	2210	1860	2040	2210	2140	1820
14	1600	2210	2120	1920	8910	4490	2150	1900	2020	2170	2180	1640
15	1580	2140	2030	1810	5930	5160	2110	1670	2080	2170	2170	1510
16	1580	2070	2030	1720	5260	4620	2060	1680	2140	2180	2170	1440
17	1650	2060	2010	1670	4730	3460	2880	1700	2130	2240	2180	1320
18	1670	2020	1950	1700	4090	4430	3200	1720	2130	2860	2180	1340
19	1690	2050	1950	1670	3830	5700	3240	1660	2070	2940	2170	1320
20	1640	2080	2010	1620	3500	5160	3210	1610	2040	2700	2160	1300
21	1640	2550	1970	1630	3240	4550	2900	1600	2080	2580	2340	1320
22	1640	5140	2020	1620	3110	4150	2710	1560	2090	3140	2580	1300
23	1610	4910	2280	1540	3030	4370	2860	1540	2080	3270	2620	1270
24	1630	3840	2260	3700	2490	3810	2990	1700	2040	2810	2600	1270
25	1640	4560	2300	8160	2250	3320	2940	1840	2020	2560	2580	1310
26	1640	4260	2240	11400	2060	3080	2880	1670	2150	2530	2590	1330
27	1720	4050	2160	6350	1950	2850	2840	1530	2220	2380	2570	1340
28	1720	5000	2100	8370	1840	2730	2800	1550	2210	2340	2600	1360
29	1760	5630	2100	6270	---	2600	2790	1580	2210	2310	2810	1320
30	2120	3350	2180	5390	---	2470	3140	1540	2140	2290	2840	1280
31	2470	---	2070	3840	---	2360	---	1780	---	2270	2800	---
TOTAL	53620	95970	68300	111460	124020	96640	77650	60700	59160	74980	72440	57570
MEAN	1730	3199	2203	3595	4429	3117	2588	1958	1972	2419	2337	1919
MAX	2470	5630	2890	11400	18400	5700	3240	3080	2220	3270	2840	2970
MIN	1580	2020	1950	1540	1840	1760	1710	1530	1600	2170	2130	1270
AC-FT	106400	190400	135500	221100	246000	191700	154000	120400	117300	148700	143700	114200

CAL YR 1986 TOTAL 1215040 MEAN 3329 MAX 27800 MIN 1560 AC-FT 2410000
WTR YR 1987 TOTAL 952510 MEAN 2610 MAX 18400 MIN 1270 AC-FT 1889000

14361500 ROGUE RIVER AT GRANTS PASS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1973 to current year.

INSTRUMENTATION.--Temperature recorder since August 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 23.5°C June 7, 1977; minimum, 0.5°C on several days in 1974, 1977, 1978, 1980. Maximum since full operation of Lost Creek Lake, 21.5°C July 4, 5, 1981.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 19.5°C Aug. 3, 4, 9, 10; minimum, 1.0°C Jan. 17, 18.

TEMPERATURE, WATER (DEG. C), WATER YEAR CCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.0	11.0	11.5	10.0	8.5	9.5	6.0	5.5	6.0	6.5	5.0	5.5
2	11.0	10.5	10.5	9.0	8.0	8.5	5.5	5.5	5.5	6.0	5.0	5.5
3	11.0	10.0	10.5	9.0	7.5	8.5	5.5	5.5	5.5	6.0	5.0	5.5
4	11.5	10.5	11.0	9.0	7.5	8.0	6.0	5.5	5.5	6.0	5.5	5.5
5	12.0	11.0	11.5	9.0	7.5	8.0	6.5	6.0	6.0	5.5	5.5	5.5
6	12.5	11.5	12.0	8.0	7.5	7.5	7.5	6.5	7.0	5.5	4.5	5.0
7	12.5	11.5	12.0	8.5	7.5	8.0	7.0	6.0	6.5	4.5	3.5	4.0
8	12.5	11.5	12.0	8.0	7.5	8.0	6.0	5.0	5.5	3.5	2.5	2.5
9	12.5	11.0	12.0	9.0	8.0	8.5	5.0	5.0	5.0	3.5	2.5	3.0
10	12.5	10.5	12.0	9.0	8.0	8.5	5.0	4.5	5.0	3.5	2.5	3.0
11	12.0	10.5	11.5	8.5	7.5	8.0	5.0	4.0	4.5	4.0	2.5	3.5
12	11.5	9.5	10.5	8.0	7.5	7.5	5.0	4.0	4.5	4.0	3.0	3.5
13	11.0	9.0	10.0	8.0	7.5	8.0	5.5	5.0	5.5	4.0	3.5	4.0
14	11.0	9.0	10.0	8.0	7.5	8.0	6.0	5.5	6.0	4.5	3.5	4.0
15	11.0	9.0	10.0	8.0	7.5	8.0	6.0	5.5	5.5	4.0	3.0	3.5
16	10.5	9.0	10.0	8.5	7.5	8.0	5.5	5.0	5.0	3.0	1.5	2.0
17	10.5	9.5	10.0	8.5	7.5	8.0	5.0	5.0	5.0	2.0	1.0	1.5
18	11.0	9.5	10.5	8.5	7.5	8.0	5.0	4.5	5.0	2.5	1.0	2.0
19	11.0	9.5	10.5	8.0	7.0	7.5	5.5	5.0	5.0	3.0	1.5	2.0
20	11.0	9.0	10.0	8.5	7.5	8.0	5.5	5.0	5.5	2.5	1.5	2.0
21	11.0	9.0	10.0	8.5	8.0	8.0	5.5	5.0	5.0	3.0	1.5	2.5
22	11.0	9.0	10.0	8.5	8.0	8.5	6.0	5.0	5.5	3.5	2.5	3.0
23	11.0	9.5	10.0	8.5	8.0	8.0	6.5	5.5	6.0	4.5	3.5	4.0
24	10.0	9.5	9.5	8.5	7.5	8.0	6.0	5.5	6.0	5.0	4.0	4.5
25	11.0	9.5	10.0	7.5	6.5	7.0	6.0	5.5	6.0	5.0	4.0	4.0
26	11.5	10.5	11.0	7.0	6.5	7.0	6.0	5.0	5.5	6.0	5.0	5.5
27	11.5	11.0	11.5	7.5	7.0	7.5	6.0	5.0	5.5	6.5	6.0	6.5
28	11.5	10.5	11.0	8.0	7.5	7.5	5.0	4.5	5.0	6.0	5.5	5.5
29	10.5	9.0	9.5	7.5	6.5	7.0	5.0	4.0	4.5	6.0	5.5	5.5
30	10.0	9.0	9.5	6.5	5.5	6.5	5.5	4.5	5.0	6.0	5.5	5.5
31	10.5	9.5	10.0	---	---	---	5.0	4.0	4.5	5.5	5.5	5.5
MONTH	12.5	9.0	10.5	10.0	5.5	8.0	7.5	4.0	5.5	6.5	1.0	4.0

14361500 ROGUE RIVER AT GRANTS PASS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	5.5	7.5	6.0	7.0	12.0	9.5	11.0	12.0	10.5	11.0
2	6.5	5.5	6.0	7.5	6.5	7.0	12.0	10.0	11.0	11.0	9.5	10.5
3	6.5	6.5	6.5	8.5	7.5	8.0	12.0	10.0	11.0	12.0	9.5	10.5
4	6.5	5.5	6.0	9.5	8.0	8.5	12.0	10.0	11.0	14.5	11.5	13.0
5	6.0	6.0	6.0	9.5	8.5	9.0	12.0	10.0	11.0	15.0	12.0	13.5
6	6.0	5.5	6.0	9.0	8.0	8.5	11.0	9.5	10.5	16.0	13.0	14.5
7	6.5	5.5	6.0	8.5	7.0	8.0	11.5	9.0	10.5	16.5	13.5	15.0
8	6.5	5.5	6.0	8.5	7.0	8.0	13.5	10.5	12.0	16.0	13.5	14.5
9	7.0	6.0	6.5	9.0	7.5	8.5	14.0	11.0	12.5	16.5	13.5	15.5
10	7.5	6.5	7.0	9.0	7.5	8.5	13.0	11.5	12.0	16.0	14.0	15.5
11	8.5	7.0	7.5	8.0	7.5	7.5	18.5	9.0	11.5	16.5	14.0	15.5
12	8.0	7.0	7.5	8.0	7.0	7.5	11.0	9.5	10.0	16.5	14.5	15.5
13	7.0	6.5	6.5	8.0	7.5	8.0	11.5	10.0	10.5	16.0	14.0	15.5
14	6.5	6.0	6.5	8.0	7.0	7.5	12.5	11.0	11.5	16.5	14.5	15.5
15	6.5	6.5	6.5	7.0	6.5	7.0	13.5	12.5	13.0	16.5	14.5	15.5
16	6.5	6.0	6.5	8.0	7.0	7.5	14.0	13.0	13.5	16.5	15.0	15.5
17	7.0	6.0	6.5	8.0	7.5	8.0	14.0	11.5	13.0	16.0	14.5	15.0
18	7.5	6.5	7.0	7.5	7.0	7.5	12.0	9.5	10.5	15.0	14.0	14.5
19	6.5	5.5	6.5	7.0	6.5	6.5	10.0	8.5	9.5	15.0	13.5	14.0
20	6.5	5.5	6.0	6.5	6.0	6.5	11.5	8.5	10.0	14.5	13.5	14.0
21	6.5	5.5	6.0	7.5	6.0	7.0	13.0	10.0	11.5	14.5	14.0	14.0
22	6.0	5.5	6.0	7.5	7.0	7.5	14.0	11.5	13.0	15.0	14.0	14.5
23	5.5	5.0	5.5	8.5	7.0	8.0	14.0	12.0	13.0	15.5	14.5	15.0
24	6.0	5.0	5.5	9.0	8.0	8.0	14.0	11.5	12.5	15.5	14.0	15.0
25	6.0	4.5	5.0	9.5	8.0	8.5	13.5	11.0	12.5	14.5	13.0	13.5
26	6.0	4.0	5.0	10.0	8.0	9.0	14.0	11.5	12.5	13.5	12.5	13.0
27	7.0	4.5	6.0	9.5	8.0	9.0	15.0	12.0	13.5	13.5	12.5	13.0
28	7.5	5.5	6.5	9.5	7.5	8.5	14.5	12.5	13.5	14.0	13.0	13.5
29	---	---	---	10.0	7.5	9.0	13.0	11.5	12.5	14.5	13.5	14.5
30	---	---	---	11.0	8.0	9.5	12.5	11.5	12.0	15.5	14.0	15.0
31	---	---	---	11.5	9.0	10.5	---	---	---	14.5	12.5	13.5
MONTH	8.5	4.0	6.0	11.5	6.0	8.0	18.5	8.5	11.5	16.5	9.5	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.0	13.0	14.0	18.0	16.0	17.0	17.5	15.5	16.5	17.5	16.0	16.5
2	16.0	13.5	15.0	18.0	16.0	17.0	18.0	15.5	17.0	17.0	15.0	16.0
3	17.0	16.0	16.5	17.5	15.5	16.5	19.5	16.5	18.0	15.5	14.0	14.5
4	18.0	17.0	17.5	17.5	15.5	16.5	19.5	17.0	18.5	15.0	13.5	14.5
5	18.0	17.0	17.5	16.5	14.5	15.5	19.0	17.0	18.5	15.5	13.5	14.5
6	17.5	17.0	17.5	16.5	14.5	15.5	18.5	16.5	18.0	15.5	13.5	14.5
7	18.0	16.5	17.5	16.5	14.5	16.0	18.5	16.5	17.5	15.0	13.5	14.5
8	17.5	15.5	16.5	16.5	14.5	16.0	19.0	17.0	18.0	15.0	13.5	14.5
9	16.5	15.5	16.5	16.5	15.0	16.0	19.5	17.5	18.5	15.0	13.0	14.0
10	16.5	15.5	16.5	16.5	14.5	16.0	19.5	17.5	18.5	14.0	12.5	13.5
11	17.0	16.0	16.5	16.5	15.0	16.0	19.0	17.0	18.0	14.5	13.0	13.5
12	17.5	17.0	17.0	17.5	15.0	16.5	18.5	16.5	17.5	15.0	13.5	14.5
13	18.0	16.5	17.5	18.0	15.5	17.0	18.5	16.5	17.5	15.5	14.0	15.0
14	18.0	16.5	17.5	18.0	16.0	17.5	18.0	16.5	17.0	15.0	14.0	14.5
15	18.0	14.5	15.5	18.0	16.0	17.5	17.5	15.5	17.0	15.5	14.5	15.0
16	14.5	12.5	13.0	17.5	16.0	16.5	18.0	16.0	17.0	15.0	12.5	14.5
17	14.0	12.0	13.0	16.0	13.5	14.0	18.0	16.0	17.0	14.0	11.5	13.0
18	16.0	13.5	15.0	13.5	12.0	12.5	18.5	16.0	17.5	14.0	12.0	13.0
19	16.5	15.0	16.0	14.5	12.5	13.5	18.5	16.5	18.0	14.0	11.5	12.5
20	16.5	14.5	16.0	17.0	14.5	15.5	18.5	17.0	18.0	13.5	11.5	12.5
21	16.0	14.5	15.0	16.5	15.0	15.5	18.5	17.0	18.0	13.5	11.5	12.5
22	14.5	14.0	14.5	15.0	13.5	14.5	17.5	15.5	16.5	14.0	11.5	12.5
23	16.0	13.5	15.0	17.0	14.5	15.5	16.0	14.5	15.5	14.5	12.0	13.0
24	16.5	14.5	15.5	18.0	15.5	16.5	17.5	14.5	16.0	14.5	12.0	13.0
25	17.5	15.5	16.5	18.0	15.5	17.0	18.0	15.5	17.0	14.0	12.0	12.5
26	17.5	16.0	17.0	18.0	15.5	17.0	18.0	15.5	16.5	13.5	12.0	12.5
27	18.0	16.0	17.0	18.0	15.5	16.5	18.5	15.5	17.0	13.5	11.5	12.5
28	18.0	16.0	17.0	17.5	15.5	16.5	18.5	16.0	17.5	13.0	11.0	12.0
29	18.0	16.0	17.5	17.5	15.5	16.5	18.5	16.0	17.5	13.0	11.0	12.0
30	18.0	16.0	17.0	17.5	15.5	17.0	18.0	15.5	17.0	16.5	11.5	12.5
31	---	---	---	17.0	15.0	16.5	18.5	15.5	17.0	---	---	---
MONTH	18.0	12.0	16.0	18.0	12.0	16.0	19.5	14.5	17.5	17.5	11.0	13.5
YEAR	19.5	1.0	11.0									

14361590 MIDDLE FORK APPLEGATE RIVER NEAR COPPER, OR

LOCATION.--Lat 42°00'23", long 123°09'23", in W-1/2 sec.17, T.48 N., R.11 W., Mt. Diablo Meridian, Siskiyou County, CA, Rogue River National Forest, Hydrologic Unit 17100309, on left bank 0.2 mi upstream from Elliot Creek, 1.6 mi southwest of former town of Copper, and at mile 51.6.

DRAINAGE AREA.--50.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1979 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 2,001.74 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversion.

AVERAGE DISCHARGE.--8 years, 179 ft^3/s, 47.95 in/yr, 129,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,880 ft^3/s Dec. 19, 1981, gage height, 9.74 ft; minimum discharge, 8.2 ft^3/s Aug. 28 to Sept. 1, Sept. 10-16, 19, 21-24, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 2	0330	*1,290	*5.69	Mar. 12	1700	1,270	5.67

Minimum discharge, 8.2 ft^3/s Aug. 28 to Sept. 1, 10-16, 19, 21-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	82	55	222	430	106	192	221	54	19	13	8.5
2	36	62	52	175	960	112	225	180	50	19	13	8.8
3	32	51	50	224	512	267	262	164	48	19	12	8.9
4	30	45	54	158	344	300	224	171	46	19	12	9.0
5	29	41	79	112	265	548	207	209	44	18	12	9.0
6	27	38	75	89	230	456	191	240	43	18	12	9.2
7	25	39	67	76	214	318	189	236	42	18	12	9.2
8	24	38	60	68	207	273	214	214	43	18	11	9.3
9	23	37	54	62	203	259	223	195	41	17	11	9.1
10	22	38	50	59	204	236	250	172	39	17	10	8.7
11	21	36	47	59	243	250	264	155	37	16	10	8.4
12	20	34	45	65	263	915	219	147	35	16	10	8.4
13	20	33	59	62	598	713	202	134	34	15	10	8.5
14	20	34	65	61	439	514	218	122	33	15	10	8.4
15	19	35	57	58	365	404	242	119	34	15	10	8.3
16	19	33	53	55	299	331	253	114	34	15	10	8.5
17	25	32	49	55	253	300	270	101	33	16	9.9	8.7
18	25	33	50	48	222	287	238	91	31	18	9.8	8.7
19	22	38	50	46	197	251	196	84	30	19	9.6	8.6
20	21	52	46	45	179	226	178	78	29	17	9.6	8.7
21	20	123	44	44	168	209	201	74	30	18	9.6	8.5
22	20	174	96	45	155	193	281	70	28	25	9.5	8.3
23	19	116	116	47	147	187	295	67	27	19	9.5	8.4
24	19	101	84	94	135	172	256	67	26	18	9.3	8.4
25	19	98	70	580	125	163	239	72	25	17	8.9	8.8
26	21	79	66	726	118	158	269	65	24	16	8.8	9.1
27	33	70	60	495	113	150	322	60	23	15	8.8	9.2
28	27	75	55	426	109	144	325	57	22	15	8.7	9.4
29	83	66	81	300	---	141	267	54	21	14	8.6	9.1
30	336	58	83	238	---	143	251	54	20	14	8.5	8.8
31	133	---	90	207	---	161	---	63	---	14	8.8	---
TOTAL	1231	1791	1962	5001	7697	8887	7163	3850	1026	529	315.9	262.9
MEAN	39.7	59.7	63.3	161	275	287	239	124	34.2	17.1	10.2	8.76
MAX	336	174	116	726	960	915	325	240	54	25	13	9.4
MIN	19	32	44	44	109	106	178	54	20	14	8.5	8.3
AC-FT	2440	3550	3890	9920	15270	17630	14210	7640	2040	1050	627	521
CFSM	.78	1.18	1.25	3.18	5.42	5.65	4.71	2.45	.67	.34	.20	.17
IN.	.90	1.31	1.44	3.67	5.65	6.52	5.26	2.82	.75	.39	.23	.19

CAL YR 1986 TOTAL 60096.0 MEAN 165 MAX 3090 MIN 9.4 AC-FT 119200 CFSM 3.25 IN. 44.09
WTR YR 1987 TOTAL 39715.8 MEAN 109 MAX 960 MIN 8.3 AC-FT 78780 CFSM 2.15 IN. 29.14

14361590 MIDDLE FORK APPLEGATE RIVER NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1979 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since August 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 23.5°C Aug. 8, 10-12, 1981; minimum, 0.0°C Dec. 24, 1983, Mar. 27, 1985, Jan. 15-20, 1987.

EXTREMES CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.0°C July 14; minimum, 0.0°C Jan. 15-20.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	8.0	8.5	6.5	5.5	6.0	2.5	2.0	2.0	4.0	3.5	4.0
2	9.0	7.5	8.0	6.0	4.5	5.5	2.5	2.0	2.0	4.5	3.5	4.0
3	9.0	6.5	7.5	6.0	5.0	5.5	3.0	2.0	2.5	4.5	4.0	4.0
4	9.5	7.0	8.0	6.0	5.0	5.5	4.0	3.0	3.5	4.5	4.0	4.0
5	10.0	7.5	8.5	6.5	5.0	5.5	4.5	4.0	4.5	4.5	3.0	3.5
6	10.0	7.5	9.0	5.5	4.5	5.0	4.5	4.5	4.5	3.0	2.5	2.5
7	10.5	8.0	9.5	5.5	5.0	5.5	4.5	2.5	3.0	2.5	1.5	1.5
8	10.5	8.0	9.0	5.5	4.5	5.0	2.5	2.0	2.5	2.0	.5	1.5
9	10.0	8.0	9.0	6.5	5.5	6.0	2.0	1.5	2.0	2.5	2.0	2.0
10	10.0	8.0	9.0	6.5	5.0	6.0	2.0	1.5	1.5	2.5	2.0	2.0
11	10.0	7.5	8.5	5.0	4.0	4.5	2.5	1.5	2.0	2.5	2.0	2.5
12	8.5	6.5	7.5	5.0	3.5	4.5	3.0	2.0	2.5	3.5	2.5	3.0
13	8.5	6.0	7.5	5.5	4.0	4.5	4.0	3.0	3.5	3.0	2.0	2.5
14	8.5	6.5	7.5	5.5	5.0	5.0	4.5	3.5	4.0	2.5	2.0	2.5
15	8.5	6.5	7.5	5.5	5.5	5.5	3.5	2.5	3.0	2.0	.0	1.0
16	8.5	6.5	7.5	5.5	5.0	5.0	3.0	2.5	2.5	.0	.0	.0
17	8.5	8.0	8.5	5.0	4.0	4.5	2.5	2.0	2.0	.5	.0	.0
18	9.0	8.0	8.5	5.5	4.0	5.0	4.0	2.5	3.0	1.5	.0	.5
19	8.0	6.5	7.5	6.0	5.0	5.5	4.0	3.0	3.5	.5	.0	.5
20	8.0	6.0	7.0	7.0	5.5	6.5	3.0	2.5	2.5	.5	.0	.5
21	8.0	6.5	7.5	6.0	5.5	5.5	3.5	2.5	3.0	1.5	.5	1.0
22	8.5	6.5	7.5	5.5	5.5	5.5	4.0	3.0	4.0	2.5	1.5	2.0
23	8.0	6.5	7.5	6.0	5.0	5.5	4.0	3.0	3.0	3.5	2.5	3.0
24	9.0	7.0	8.0	6.0	4.5	5.0	3.5	3.0	3.0	3.5	3.0	3.0
25	10.5	8.0	9.0	4.5	3.5	3.5	3.5	2.5	3.0	4.0	3.5	4.0
26	10.5	9.0	9.5	4.0	3.5	4.0	3.5	3.0	3.5	5.5	4.0	4.5
27	10.0	8.5	9.5	5.5	4.0	5.0	3.0	2.0	2.5	5.0	4.5	4.5
28	8.5	7.5	8.0	5.0	3.5	4.5	3.0	2.0	2.5	4.5	4.0	4.0
29	8.0	7.0	7.5	3.5	3.0	3.5	4.0	3.0	3.5	5.0	4.5	4.5
30	7.5	7.0	7.0	3.0	2.0	2.5	3.5	2.5	2.5	5.0	4.5	4.5
31	7.0	6.0	6.5	---	---	---	3.5	2.5	3.5	5.5	4.5	5.0
MONTH	10.5	6.0	8.0	7.0	2.0	5.0	4.5	1.5	3.0	5.5	.0	2.5

14361590 MIDDLE FORK APPLEGATE RIVER NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	5.0	5.0	6.0	3.5	5.0	8.5	5.5	7.0	7.0	6.0	6.5
2	5.5	5.0	5.5	6.5	5.0	5.5	8.0	5.5	7.0	7.0	6.0	6.5
3	5.5	5.0	5.5	6.0	6.0	6.0	6.5	5.5	6.0	10.5	6.5	8.5
4	6.0	5.0	5.5	6.0	5.5	5.5	7.5	5.0	6.0	11.5	7.5	9.5
5	5.5	5.0	5.5	6.0	5.0	5.5	7.0	5.0	6.0	12.0	8.5	10.0
6	5.5	4.5	5.0	5.0	4.5	5.0	6.5	4.5	5.5	12.5	9.0	10.5
7	6.0	4.5	5.5	5.5	4.0	4.5	8.0	6.0	7.0	12.5	9.5	11.0
8	6.0	5.5	5.5	6.0	5.0	5.5	8.5	6.5	7.5	12.0	9.5	10.5
9	6.5	5.0	5.5	6.5	5.0	5.5	8.0	5.0	6.5	13.0	9.5	11.0
10	6.5	5.5	6.0	5.5	5.0	5.5	7.5	5.5	6.5	12.5	9.0	10.5
11	6.5	5.0	5.5	5.5	5.0	5.5	6.5	4.0	5.0	13.0	9.5	11.0
12	5.5	4.5	5.0	5.5	5.5	5.5	7.0	4.5	5.5	13.0	10.5	11.5
13	5.5	4.5	5.0	6.0	5.5	5.5	8.5	4.5	6.5	13.5	9.5	11.5
14	5.0	4.5	4.5	5.5	4.5	5.0	9.5	6.0	7.5	14.5	10.5	12.0
15	5.0	3.5	4.5	5.5	4.5	5.0	9.0	5.5	7.0	15.0	11.5	13.0
16	5.0	4.5	4.5	6.0	5.0	5.5	9.5	6.0	7.5	13.0	10.5	12.0
17	5.5	4.5	5.0	6.5	5.0	5.5	8.0	5.5	7.0	12.5	8.5	10.5
18	5.0	4.0	4.5	5.0	4.0	4.0	5.5	4.5	5.0	13.0	9.5	10.5
19	4.5	3.5	4.0	5.0	4.0	4.0	6.5	3.5	5.0	11.5	7.5	9.5
20	4.5	3.5	4.0	4.5	3.5	4.0	8.5	4.5	6.5	12.0	7.0	9.5
21	4.0	4.0	4.0	5.5	4.0	4.5	10.0	6.5	8.0	12.5	7.5	10.0
22	4.5	4.0	4.5	6.0	4.0	5.0	10.5	7.0	8.5	13.5	8.5	10.5
23	4.0	3.5	3.5	6.0	5.0	5.5	9.5	6.5	8.0	12.5	9.0	10.5
24	4.0	3.0	3.5	6.5	4.5	5.0	9.5	6.0	7.5	11.5	10.0	10.5
25	3.5	2.5	3.0	6.5	4.0	5.5	10.0	6.5	8.0	10.5	9.5	10.0
26	4.0	2.0	3.0	7.0	4.0	5.5	11.0	7.5	9.0	12.5	9.0	10.0
27	5.0	3.5	4.0	6.0	3.5	4.5	11.0	7.5	9.0	13.0	8.5	10.5
28	5.5	3.0	4.0	6.5	3.5	5.0	9.5	8.0	8.5	13.5	9.0	11.0
29	---	---	---	7.5	4.0	5.5	10.0	7.0	8.5	13.5	9.5	11.0
30	---	---	---	8.0	4.5	6.0	8.5	7.0	8.0	13.0	10.0	11.0
31	---	---	---	8.5	5.5	6.5	---	---	---	13.0	9.5	11.0
MONTH	6.5	2.0	4.5	8.5	3.5	5.0	11.0	3.5	7.0	15.0	6.0	10.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	8.5	10.5	19.5	15.5	17.5	19.0	13.5	16.0	17.5	16.0	17.0
2	15.5	9.0	11.5	20.5	15.0	17.5	19.5	14.0	16.5	16.5	15.0	16.0
3	16.5	11.0	13.0	20.0	15.0	17.0	20.5	14.5	17.5	16.0	14.0	15.0
4	18.0	12.0	14.5	18.5	14.0	16.0	20.5	15.5	18.0	15.0	13.0	14.0
5	17.0	12.0	14.0	18.5	13.0	15.5	20.0	15.5	17.5	14.0	12.5	13.5
6	17.5	11.5	14.0	18.5	13.0	15.5	19.0	14.5	16.5	14.0	12.0	13.0
7	14.0	12.5	13.5	18.0	14.0	16.0	19.5	14.0	16.5	14.0	12.5	13.0
8	17.5	12.5	14.5	19.5	15.0	17.0	20.0	15.0	17.5	13.5	12.5	13.0
9	14.5	13.0	13.5	18.5	13.5	16.0	20.5	16.0	18.0	13.5	12.0	13.0
10	16.5	11.0	13.5	19.5	15.0	17.0	20.0	15.5	17.5	14.0	12.0	13.0
11	18.0	11.5	14.5	20.0	14.0	17.0	19.5	15.0	17.0	14.5	11.5	13.0
12	18.0	12.0	14.5	20.5	14.5	17.5	19.0	14.0	16.5	15.0	12.0	13.5
13	19.0	13.0	15.5	21.5	15.5	18.5	19.0	15.0	16.5	15.0	12.5	13.5
14	17.5	13.5	15.5	22.0	16.5	19.0	18.0	15.0	16.0	14.0	12.0	13.0
15	15.0	13.0	14.0	21.5	17.0	19.0	18.0	13.5	15.5	14.5	12.0	13.0
16	13.0	11.5	12.0	18.5	15.0	16.5	17.5	13.5	15.5	13.0	10.0	11.5
17	15.0	11.0	12.5	15.0	13.0	13.5	18.0	13.0	15.5	12.5	10.0	11.0
18	16.5	10.5	13.5	13.5	12.5	13.0	18.5	14.0	16.0	12.0	10.5	11.5
19	17.5	11.5	14.5	16.5	12.0	14.0	18.5	14.5	16.5	12.0	10.0	11.0
20	15.0	13.0	14.0	16.0	12.0	14.0	19.0	15.0	16.5	12.5	10.0	11.5
21	14.5	12.5	13.5	14.5	12.5	13.0	18.5	14.5	16.5	13.0	10.0	11.5
22	16.5	11.0	13.5	16.5	12.5	14.0	17.0	14.5	16.0	13.5	10.5	12.0
23	17.5	11.5	14.0	17.0	12.0	14.5	18.0	14.0	16.0	13.0	11.0	12.0
24	18.5	12.0	15.0	16.5	12.5	14.5	18.5	14.5	16.0	12.5	11.0	12.0
25	19.5	13.5	16.0	18.0	13.0	15.0	18.0	14.0	16.0	14.0	12.0	12.5
26	20.5	14.5	17.5	18.5	13.0	15.5	18.0	14.0	16.0	13.5	12.0	12.5
27	21.0	15.5	18.0	18.0	12.5	15.0	18.5	14.5	16.5	13.0	10.0	11.5
28	21.0	15.5	18.0	18.5	13.0	15.5	19.0	15.0	17.0	12.5	10.0	11.0
29	21.0	16.0	18.5	18.5	13.5	15.5	19.0	15.5	17.0	13.0	10.0	11.5
30	21.0	16.0	18.5	18.0	14.5	16.0	19.0	15.5	17.0	13.0	10.5	11.5
31	---	---	---	18.5	14.0	16.0	18.5	15.5	17.0	---	---	---
MONTH	21.0	8.5	14.5	22.0	12.0	16.0	20.5	13.0	16.5	17.5	10.0	12.5
YEAR	22.0	.0	9.0									

14361600 ELLIOTT CREEK NEAR COPPER, OR

LOCATION.--Lat 42°00'16", long 123°09'00", in W-1/2 sec.17, T.48 N., R.11 W., Mt. Diablo Meridian, Siskiyou County, CA, Hydrologic Unit 17100309, Rogue River National Forest, on left bank 0.3 mi upstream from Middle Fork Applegate River and 1.5 mi south of former town of Copper.

DRAINAGE AREA.--51.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September 1987 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,023.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good. No diversion or regulation.

AVERAGE DISCHARGE.--10 years, 108 ft^3/s, 28.31 in/yr, 78,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,980 ft^3/s Dec. 19, 1981, gage height, 7.13 ft; minimum discharge, 3.9 ft^3/s Sept. 10, 1980; minimum daily, 7.1 ft^3/s Sept. 14-16, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 2	0330	*526	*3.18				

Minimum discharge, 8.9 ft^3/s Sept. 23-25, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	28	27	82	123	49	84	177	60	23	17	11
2	20	25	26	59	331	50	93	146	55	23	16	11
3	19	23	26	85	143	72	103	139	52	22	15	11
4	18	21	27	55	97	78	90	154	50	21	15	11
5	18	21	33	42	79	150	88	177	48	21	14	10
6	18	21	31	36	71	127	86	195	46	21	14	10
7	17	21	28	31	66	97	84	200	46	21	14	11
8	16	22	26	29	63	87	96	193	53	20	14	11
9	16	22	25	28	60	83	102	183	47	20	13	11
10	16	28	25	28	60	77	116	165	45	19	13	10
11	16	24	24	28	72	88	122	156	42	19	13	10
12	15	23	24	29	76	307	101	153	39	18	13	10
13	15	22	29	28	190	241	103	140	37	18	13	10
14	15	22	30	26	139	185	121	130	36	17	13	10
15	15	25	26	25	124	155	137	126	36	18	13	10
16	15	23	24	24	103	133	146	117	37	17	13	10
17	18	22	24	33	89	122	156	103	37	28	12	10
18	20	22	24	26	80	118	135	95	35	36	12	10
19	18	28	24	24	73	104	112	88	33	27	12	10
20	16	28	23	25	68	96	110	82	31	22	12	9.8
21	16	42	22	23	66	91	136	78	32	28	12	9.6
22	16	42	33	23	62	86	181	75	31	41	12	9.2
23	16	34	33	24	60	86	194	74	29	27	11	9.0
24	15	33	28	47	58	80	187	85	28	25	11	8.9
25	15	36	26	156	54	77	184	92	27	23	11	9.3
26	16	30	26	143	52	75	202	75	25	21	11	9.5
27	21	28	25	105	51	72	238	70	25	19	11	9.8
28	17	32	24	103	49	70	244	66	25	18	10	9.7
29	34	31	27	75	---	69	222	62	24	18	10	9.3
30	64	27	26	63	---	69	204	61	23	18	10	9.0
31	35	---	31	57	---	75	---	70	---	18	12	---
TOTAL	609	806	827	1562	2559	3269	4177	3727	1134	687	392	300.1
MEAN	19.6	26.9	26.7	50.4	91.4	105	139	120	37.8	22.2	12.6	10.0
MAX	64	42	33	156	331	307	244	200	60	41	17	11
MIN	15	21	22	23	49	49	84	61	23	17	10	8.9
AC-FT	1210	1600	1640	3100	5080	6480	8290	7390	2250	1360	778	595
CFSM	.38	.52	.52	.97	1.76	2.04	2.69	2.32	.73	.43	.24	.19
IN.	.44	.58	.59	1.12	1.84	2.35	3.00	2.68	.81	.49	.28	.22

CAL YR 1986 TOTAL 34186 MEAN 93.7 MAX 1770 MIN 14 AC-FT 67810 CFSM 1.81 IN. 24.55
WTR YR 1987 TOTAL 20049.1 MEAN 54.9 MAX 331 MIN 8.9 AC-FT 39770 CFSM 1.06 IN. 14.40

14361600 ELLIOTT CREEK NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1977 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 23.0°C Aug. 7, 8, 1978, Aug. 8, 10-12. 1981; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 20.0°C July 14, 15; minimum, 0.0°C Jan. 8, 15-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.0	8.5	9.0				---	---	---	4.0	3.5	4.0
2	9.0	7.5	8.5				---	---	---	4.0	3.0	3.5
3	8.5	6.5	8.0				---	---	---	4.5	4.0	4.0
4	9.0	7.0	8.0				4.5	3.0	3.5	4.0	3.0	3.5
5	9.5	7.5	8.5				5.0	4.5	4.5	4.0	2.0	3.0
6	9.5	8.0	9.0				5.5	4.5	5.0	2.0	1.5	1.5
7	10.0	8.0	9.0				4.5	2.5	3.0	1.5	.0	.5
8	9.5	8.0	9.0				2.5	1.5	2.0	1.0	.0	.5
9	9.5	8.0	9.0				1.5	1.0	1.0	1.5	1.0	1.5
10	9.5	8.0	9.0				1.0	.5	1.0	1.5	1.0	1.0
11	9.0	7.5	8.5				2.5	1.0	1.5	1.5	1.0	1.0
12	7.5	6.0	7.0				3.0	2.0	2.5	2.5	1.5	2.0
13	7.0	5.5	6.5				4.5	3.0	3.5	2.5	1.0	1.5
14	7.5	6.0	7.0				4.0	3.0	3.5	2.0	1.0	1.5
15	7.5	6.0	7.0				3.0	2.0	2.5	1.5	.0	.0
16	8.0	6.0	7.0				3.0	1.5	2.0	.0	.0	.0
17	8.5	8.0	8.0				1.5	1.0	1.5	.0	.0	.0
18	8.5	7.5	8.0				4.0	1.5	3.0	.0	.0	.0
19	8.0	6.0	7.0				4.0	3.0	3.5	.0	.0	.0
20	7.0	6.0	7.0				3.5	2.0	2.0	.0	.0	.0
21	7.5	6.0	7.0				3.0	1.5	2.5	.5	.0	.0
22	7.5	6.5	7.0				4.5	3.0	4.0	1.5	.5	1.0
23	8.0	6.0	7.0				4.0	2.5	3.0	2.5	1.5	2.0
24	9.0	7.5	8.0				3.0	2.5	2.5	3.5	2.0	2.5
25	9.5	8.0	9.0				3.0	2.0	2.5	4.0	3.0	4.0
26	9.5	9.0	9.5				3.5	2.0	3.0	4.0	3.5	3.5
27	---	---	---				2.0	1.0	1.5	4.5	3.0	3.5
28	---	---	---				2.5	.5	1.5	3.5	3.0	3.0
29	---	---	---				4.0	2.5	3.0	4.0	3.0	3.5
30	---	---	---				2.5	1.0	1.5	4.0	3.0	3.5
31	---	---	---				3.5	2.0	3.0	5.0	3.0	4.0
MONTH	---	---	---				---	---	---	5.0	.0	2.0

14361600 ELLIOTT CREEK NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.0	4.0	5.0	2.5	3.5	9.0	4.5	6.5	---	---	---
2	5.0	4.5	4.5	6.0	4.0	5.0	8.5	5.0	6.5	---	---	---
3	4.5	3.5	4.0	6.5	5.0	5.5	7.0	5.0	6.0	---	---	---
4	5.0	3.0	4.0	6.5	5.0	5.5	8.0	5.0	6.5	---	---	---
5	4.5	3.5	4.0	5.5	4.5	5.0	7.5	5.0	6.0	---	---	---
6	4.5	3.0	4.0	5.5	4.0	4.5	6.5	4.0	5.5	---	---	---
7	5.0	3.5	4.5	5.0	2.5	4.0	8.5	5.0	6.5	---	---	---
8	5.5	4.5	5.0	6.0	4.5	5.0	9.0	6.0	7.0	---	---	---
9	6.0	4.0	5.0	6.0	4.5	5.0	8.5	4.5	6.5	---	---	---
10	6.5	4.5	5.5	5.5	4.0	4.5	7.5	5.5	6.5	---	---	---
11	6.0	3.5	5.0	6.0	4.0	5.0	6.5	3.5	5.0	---	---	---
12	5.0	3.5	4.5	5.5	5.0	5.5	7.0	4.0	5.5	---	---	---
13	5.0	3.5	4.5	6.0	4.5	5.0	9.0	4.0	6.0	---	---	---
14	4.5	3.0	4.0	5.0	4.0	4.5	9.5	5.5	7.0	---	---	---
15	4.5	3.5	4.0	5.5	3.5	4.5	9.0	4.5	7.0	---	---	---
16	4.5	3.5	4.0	6.0	4.0	5.0	9.5	5.0	7.0	---	---	---
17	5.0	4.0	4.5	6.0	4.5	5.0	8.0	5.5	6.5	---	---	---
18	4.5	3.0	4.0	4.5	3.5	4.0	5.5	4.0	4.5	---	---	---
19	3.5	2.0	3.0	4.5	2.5	4.0	7.0	2.5	4.5	---	---	---
20	3.5	2.0	3.0	4.5	2.5	3.5	9.0	3.5	6.0	11.0	---	---
21	3.5	2.5	3.0	5.0	3.0	4.0	10.5	5.5	8.0	11.0	6.5	9.0
22	4.0	3.0	3.5	6.0	3.0	4.5	10.5	6.0	8.0	12.5	7.0	9.5
23	3.0	2.0	2.5	5.5	4.0	5.0	10.0	6.0	7.5	11.5	7.5	9.5
24	3.0	1.5	2.0	6.0	3.5	4.5	9.5	5.0	7.0	9.5	8.5	9.0
25	2.5	1.0	1.5	6.5	3.0	4.5	10.0	5.5	7.5	9.0	8.0	8.5
26	2.5	.5	1.5	6.5	4.0	5.5	11.0	6.0	8.5	9.5	7.5	8.5
27	3.5	2.0	3.0	6.0	2.5	4.0	11.0	6.5	8.5	11.0	7.0	9.0
28	4.5	1.5	3.0	6.5	2.5	4.0	9.5	7.0	8.0	12.0	7.5	9.5
29	---	---	---	7.0	3.0	4.5	10.0	6.0	8.0	12.5	8.0	10.5
30	---	---	---	8.0	3.5	5.5	8.5	6.5	7.5	10.5	9.0	10.0
31	---	---	---	8.5	4.5	6.5	---	---	---	11.0	8.0	9.5
MONTH	6.5	.5	4.0	8.5	2.5	4.5	11.0	2.5	6.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.5	7.0	9.5	18.0	14.0	16.5	16.5	12.5	15.0	16.5	15.0	16.0
2	14.5	7.5	11.0	18.0	14.0	16.5	17.5	13.0	15.5	16.0	14.5	15.0
3	15.5	10.0	12.5	18.0	13.5	16.0	18.0	14.0	16.5	15.0	13.5	14.0
4	16.5	11.0	13.5	16.5	12.5	15.0	18.5	15.0	17.0	14.0	12.0	13.0
5	15.5	10.5	13.0	16.0	12.0	14.5	18.0	14.5	16.5	13.0	12.0	12.5
6	16.0	10.5	13.0	16.5	12.0	14.5	17.0	13.5	15.5	13.0	11.5	12.5
7	14.0	11.5	12.5	16.0	12.5	14.0	17.0	13.0	15.5	13.0	11.5	12.5
8	15.5	11.5	13.5	18.0	14.5	16.5	18.0	14.0	16.5	13.0	12.0	12.5
9	13.5	12.0	12.5	17.0	13.0	15.0	18.5	15.0	17.0	13.0	11.0	12.0
10	15.0	9.5	12.5	18.0	14.0	16.0	18.0	14.5	16.5	13.0	11.5	12.5
11	16.5	10.5	13.5	18.0	13.0	16.0	17.5	14.0	16.0	13.5	11.5	12.5
12	16.5	11.0	14.0	18.5	14.0	16.5	16.5	13.0	15.0	13.5	11.5	12.5
13	17.5	12.0	15.0	19.5	15.0	17.5	17.0	14.0	15.5	14.0	12.0	12.5
14	16.5	13.0	15.0	20.0	16.0	18.5	16.5	13.5	15.0	13.0	11.5	12.5
15	15.0	11.5	12.5	20.0	16.0	18.0	15.5	12.5	14.0	13.5	11.0	12.5
16	11.5	10.5	11.0	17.5	14.0	15.5	15.5	12.0	14.0	11.5	9.0	10.5
17	13.5	9.5	11.5	14.5	11.0	12.0	15.5	12.0	14.0	11.0	9.0	10.0
18	15.0	9.5	12.5	12.0	10.5	11.5	16.5	12.5	15.0	11.0	9.5	10.5
19	16.5	10.5	13.5	14.5	10.5	12.5	16.5	13.5	15.5	11.0	9.0	10.5
20	15.5	12.5	14.0	14.5	11.0	13.0	17.0	14.0	15.5	11.5	9.5	10.5
21	14.0	11.5	13.0	13.5	11.5	12.0	16.5	13.5	15.5	12.0	10.0	11.0
22	15.0	10.0	12.5	14.0	11.0	12.5	16.0	14.0	15.0	13.0	10.0	11.5
23	15.5	10.5	13.0	15.0	11.0	13.0	16.5	13.0	15.0	12.0	10.5	11.5
24	17.0	11.0	14.0	15.5	11.5	13.5	16.5	13.5	15.0	12.0	10.5	11.5
25	18.0	12.5	15.5	16.5	12.5	14.5	16.5	13.5	15.0	13.0	11.5	12.0
26	19.0	13.5	16.5	16.0	12.5	14.5	16.5	13.0	15.0	13.0	11.0	12.0
27	19.0	14.5	17.0	16.0	12.0	14.5	16.5	14.0	15.5	11.0	9.0	10.5
28	19.0	14.0	17.0	16.5	12.5	15.0	17.5	14.0	16.0	11.0	9.0	10.0
29	19.5	15.0	17.5	16.5	13.0	15.0	17.5	14.5	16.0	11.5	9.0	10.5
30	19.0	14.5	17.0	16.0	14.0	15.5	17.5	14.5	16.0	12.0	9.5	10.5
31	---	---	---	16.5	13.0	15.0	17.0	15.0	16.0	---	---	---
MONTH	19.5	7.0	13.5	20.0	10.5	15.0	18.5	12.0	15.5	16.5	9.0	12.0

14361700 CARBERRY CREEK NEAR COPPER, OR

LOCATION.--Lat 42°01'34", long 123°10'10", in SW 1/4 SW 1/4 sec.3, T.41 S., R.4 W., Jackson County, Hydrologic Unit 17100309, Rogue River National Forest, on right bank, 1.2 mi west of former town of Copper and at mile 0.9.

DRAINAGE AREA.--68.9 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1978 to September 1987 (discontinued).

REVISED RECORDS.--WRD-OR-86-2: 1978.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,990.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 27 to Nov. 7, Nov. 20 to Dec. 16. Water-discharge records fair. No regulation. Diversion for irrigation of up to 8 ft^3/s from Sturgis Fork into Thompson Creek upstream from station.

AVERAGE DISCHARGE.--9 years, 154 ft^3/s, 30.35 in/yr, 111,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,680 ft^3/s Feb. 18, 1983, gage height, 8.02 ft; maximum gage height, 8.10 ft Dec. 19, 1981; minimum discharge, 5.9 ft^3/s Sept. 14-16, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 4.2 ft^3/s was measured Sept. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 2	0330	*740	3.55	Feb. 2	0330	(a)	*3.78

Minimum discharge, 7.2 ft^3/s Sept. 24.

(a) From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	60	50	149	286	97	147	166	53	20	15	10
2	27	46	48	135	595	102	161	141	47	20	14	9.8
3	26	40	46	190	417	264	182	129	43	20	13	9.7
4	24	36	50	133	302	298	167	131	40	20	12	10
5	24	32	74	102	227	451	157	145	37	20	12	11
6	22	30	70	86	188	414	148	159	31	20	11	11
7	21	32	60	74	170	318	143	157	31	19	12	11
8	20	30	54	66	160	271	155	146	33	17	11	10
9	20	31	50	62	154	248	160	134	33	17	11	9.9
10	20	34	46	59	150	217	167	122	32	17	11	9.6
11	20	30	42	58	166	212	180	112	29	18	11	9.4
12	19	27	40	60	168	464	159	106	28	17	10	9.4
13	18	26	50	60	341	498	149	101	26	15	11	9.6
14	18	26	56	58	300	415	155	93	25	15	11	8.8
15	18	28	48	55	283	356	165	92	27	14	11	8.3
16	18	26	42	53	250	307	170	87	29	15	11	8.8
17	22	25	38	58	213	282	179	82	29	17	10	9.1
18	23	26	39	51	188	276	170	76	27	19	9.6	8.9
19	21	32	42	49	168	245	148	71	26	21	9.6	8.5
20	20	40	39	47	153	218	139	67	25	19	9.9	8.2
21	20	90	37	45	145	202	154	64	28	21	10	8.4
22	19	140	73	46	133	187	192	60	26	32	10	8.0
23	18	110	89	48	129	180	201	59	25	25	11	7.5
24	18	95	70	88	121	169	179	58	24	22	10	7.5
25	18	85	61	241	114	162	167	63	23	21	10	7.9
26	19	70	58	414	108	156	179	58	22	19	9.8	8.5
27	30	64	53	325	104	148	208	55	21	18	9.9	8.7
28	26	68	51	305	100	142	216	53	20	18	9.9	8.6
29	50	62	73	218	---	136	185	51	20	16	9.5	8.5
30	250	54	75	173	---	133	178	48	20	16	9.5	8.2
31	100	---	75	148	---	137	---	64	---	16	11	---
TOTAL	997	1495	1699	3656	5833	7725	5060	2950	880	584	336.7	272.8
MEAN	32.2	49.8	54.8	118	208	249	169	95.2	29.3	18.8	10.9	9.09
MAX	250	140	89	414	595	498	216	166	53	32	15	11
MIN	18	25	37	45	100	97	139	48	20	14	9.5	7.5
AC-FT	1980	2970	3370	7250	11570	15320	10040	5850	1750	1160	668	541
CFSM	.47	.72	.80	1.71	3.02	3.62	2.45	1.38	.43	.27	.16	.13
IN.	.54	.81	.92	1.97	3.15	4.17	2.73	1.59	.48	.32	.18	.15

CAL YR 1986 TOTAL 43815 MEAN 120 MAX 2000 MIN 10 AC-FT 86910 CFSM 1.74 IN. 23.66
WTR YR 1987 TOTAL 31488.5 MEAN 86.3 MAX 595 MIN 7.5 AC-FT 62460 CFSM 1.25 IN. 17.00

14361700 CARBERRY CREEK NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1977 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 24.5°C Aug. 8-12, 1981; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.5°C July 14, 15; minimum, 0.0°C Jan. 8, 15-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.0	9.5	10.0	7.5	6.0	6.5	3.5	2.0	2.5	4.0	4.0	4.0
2	10.5	8.0	9.5	7.0	5.0	6.0	3.0	1.5	2.0	4.0	3.5	4.0
3	10.5	7.5	9.0	7.0	5.0	6.0	3.5	2.0	3.0	4.5	4.0	4.0
4	11.0	8.0	9.0	7.0	5.0	6.0	4.5	3.0	3.5	4.5	3.5	4.0
5	11.5	8.5	9.5	6.5	5.0	6.0	5.0	4.5	5.0	4.0	3.0	3.5
6	11.5	9.0	10.0	6.0	5.0	5.5	5.5	5.0	5.0	3.0	2.0	2.5
7	11.5	9.0	10.5	6.0	5.5	6.0	5.0	3.0	4.0	2.0	1.0	1.5
8	11.5	9.0	10.0	6.5	5.5	6.0	3.0	2.0	2.5	1.5	.0	1.0
9	11.0	8.5	10.0	8.0	6.0	7.0	2.0	1.5	1.5	3.0	1.5	2.0
10	11.0	9.0	10.0	7.5	6.0	7.0	2.0	1.0	1.5	2.5	1.5	2.0
11	10.5	8.5	9.5	6.0	4.5	5.0	2.5	1.0	2.0	2.5	1.5	2.0
12	9.5	7.0	8.5	5.5	3.5	4.5	3.0	2.5	3.0	3.5	2.0	2.5
13	9.5	6.5	8.0	5.5	4.0	5.0	4.5	3.0	3.5	3.0	2.0	2.5
14	9.5	7.0	8.0	6.0	5.0	5.5	4.0	3.0	3.5	2.5	2.0	2.0
15	9.5	7.0	8.5	6.0	5.5	6.0	3.0	2.5	3.0	2.0	.0	1.0
16	9.0	7.5	8.5	6.5	6.0	6.0	3.0	2.0	2.5	.0	.0	.0
17	9.5	8.5	9.0	6.0	5.0	5.5	2.5	1.5	2.0	.0	.0	.0
18	10.0	8.5	9.0	6.0	4.5	5.5	3.5	2.0	3.0	1.5	.0	.5
19	9.0	7.0	8.0	6.5	5.5	6.0	4.0	3.5	4.0	.5	.0	.0
20	9.0	7.0	8.0	7.5	6.0	6.5	3.5	2.5	2.5	.5	.0	.0
21	9.0	7.0	8.0	6.5	5.5	6.0	3.0	2.0	2.5	1.5	.0	.5
22	9.0	7.0	8.0	6.0	5.5	6.0	4.5	3.0	3.5	2.0	1.0	1.5
23	8.5	7.0	8.0	6.0	5.0	5.5	4.0	3.0	3.5	3.0	2.0	2.5
24	9.5	7.5	8.5	5.5	4.5	5.0	3.5	3.0	3.0	3.5	2.5	3.0
25	10.5	8.5	9.5	5.0	3.5	4.0	3.5	2.5	3.0	4.5	3.5	4.0
26	11.0	9.5	10.5	4.5	3.0	4.0	4.0	3.0	3.5	5.5	4.0	4.5
27	11.0	9.5	10.5	6.0	4.5	5.5	3.0	2.0	2.0	5.0	3.5	4.5
28	9.5	8.0	9.0	6.0	4.0	5.0	2.5	1.0	2.0	4.5	3.5	4.0
29	8.5	7.5	8.0	4.5	4.0	4.0	4.5	2.5	3.5	5.0	4.0	4.5
30	8.0	7.5	8.0	4.0	2.5	3.0	3.0	2.0	2.5	5.0	4.0	4.5
31	8.0	7.0	7.5	---	---	---	4.0	2.5	3.0	5.5	4.0	4.5
MONTH	11.5	6.5	9.0	8.0	2.5	5.5	5.5	1.0	3.0	5.5	.0	2.5

14361700 CARBERRY CREEK NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	5.0	5.0	5.5	3.5	4.5	9.5	5.5	7.5	8.5	6.5	7.5
2	6.0	5.0	5.0	6.5	5.0	5.5	8.5	6.0	7.5	8.0	6.0	7.0
3	5.5	4.5	5.0	7.0	6.0	6.5	8.0	6.0	7.0	11.5	7.0	9.0
4	6.0	4.0	5.0	6.5	5.0	6.0	9.0	5.5	7.0	13.0	8.5	10.5
5	5.5	4.5	5.0	6.0	5.0	5.5	8.5	5.5	7.0	13.5	9.0	11.5
6	5.5	4.0	4.5	6.0	4.5	5.0	7.0	5.0	6.0	14.0	9.5	12.0
7	6.0	4.0	5.0	6.0	3.5	5.0	9.5	6.0	7.5	14.0	10.5	12.0
8	6.5	5.0	5.5	6.5	5.0	5.5	10.0	7.0	8.5	13.5	10.0	11.5
9	6.5	4.5	5.5	7.0	5.0	6.0	9.5	5.5	7.5	14.5	10.0	12.0
10	7.0	5.5	6.5	6.0	4.5	5.5	9.0	6.5	7.5	14.0	9.5	12.0
11	6.5	5.0	5.5	6.5	5.0	5.5	7.0	4.0	6.0	14.5	10.0	12.5
12	5.5	4.0	5.0	6.0	5.5	6.0	8.0	4.5	6.5	14.5	11.0	12.5
13	5.5	4.5	5.0	6.5	5.0	5.5	9.5	5.0	7.0	14.5	10.5	12.5
14	5.0	3.5	4.5	6.0	4.5	5.5	10.5	6.5	8.5	15.5	11.0	13.0
15	5.0	3.5	4.0	6.0	4.0	5.0	10.0	6.0	8.0	16.5	12.5	14.0
16	5.0	4.0	4.5	6.5	4.5	5.5	10.5	6.0	8.5	14.0	12.0	13.0
17	5.5	4.5	5.0	7.0	5.0	6.0	9.5	6.5	8.0	14.0	9.5	11.5
18	5.5	4.0	5.0	5.0	4.0	4.5	7.0	5.0	5.5	14.0	10.0	11.5
19	5.0	3.0	4.0	5.5	3.5	4.5	8.0	3.5	5.5	13.0	8.0	10.5
20	5.0	3.0	4.0	5.0	3.0	4.0	9.5	4.5	7.0	13.0	7.5	10.0
21	4.5	3.5	4.0	5.5	4.0	4.5	11.5	6.5	9.0	12.5	8.5	10.5
22	5.0	3.5	4.0	6.0	3.5	5.0	11.5	7.5	9.5	14.0	9.0	11.0
23	4.0	3.5	3.5	6.5	5.0	5.5	11.0	7.5	9.0	13.5	10.0	11.5
24	4.5	3.0	3.5	7.0	4.0	5.5	10.5	6.0	8.5	11.5	10.5	11.0
25	4.0	2.0	3.0	7.0	3.5	5.5	11.0	6.5	9.0	11.0	10.0	10.5
26	4.0	1.5	3.0	7.5	5.0	6.0	12.0	8.0	10.0	11.5	9.5	10.5
27	5.5	3.0	4.0	6.5	3.0	5.0	12.5	8.0	10.5	12.0	10.0	11.0
28	5.5	2.5	4.0	7.0	3.0	5.0	10.5	9.0	10.0	13.5	9.0	11.5
29	---	---	---	7.5	3.5	5.5	11.0	7.5	9.0	14.0	10.0	12.0
30	---	---	---	8.5	4.5	6.5	10.0	8.0	9.0	13.5	11.0	12.0
31	---	---	---	9.0	5.5	7.0	---	---	---	12.0	10.5	11.5
MONTH	7.0	1.5	4.5	9.0	3.0	5.5	12.5	3.5	8.0	16.5	6.0	11.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	9.0	11.5	20.5	17.0	19.0	19.0	15.0	17.0	18.5	16.5	17.5
2	16.0	9.5	12.5	20.5	16.5	19.0	19.5	15.0	17.5	17.5	16.0	16.5
3	17.0	12.0	14.5	19.5	16.5	18.5	20.5	16.0	18.5	17.0	15.0	16.0
4	18.5	13.5	16.0	18.5	15.0	17.0	21.0	17.0	19.5	16.0	14.0	15.0
5	18.0	13.0	15.5	18.0	14.0	16.5	20.5	16.5	18.5	15.0	13.0	14.0
6	16.5	13.0	15.5	18.5	14.5	17.0	19.5	15.5	18.0	15.0	13.0	14.0
7	16.0	14.0	15.0	19.0	15.5	17.5	19.5	15.5	17.5	15.0	13.5	14.0
8	18.0	14.0	16.0	20.5	17.0	18.5	20.5	16.5	18.5	14.5	13.5	14.0
9	15.5	14.0	14.5	19.0	15.5	17.5	21.0	17.0	19.0	14.5	12.5	13.5
10	17.5	11.5	14.5	20.5	17.0	18.5	20.5	16.5	18.5	15.0	12.5	14.0
11	18.5	12.5	15.5	20.0	16.0	18.5	19.5	16.0	18.0	15.5	12.5	14.0
12	19.0	13.5	16.0	21.0	16.5	19.0	19.0	15.5	17.5	15.5	13.0	14.5
13	20.0	14.5	17.0	22.0	17.5	20.0	19.5	16.0	17.5	16.0	13.5	14.5
14	18.5	15.5	17.0	22.5	18.5	21.0	18.5	15.5	17.0	15.5	13.0	14.5
15	17.0	13.5	15.0	22.5	19.0	20.5	18.0	14.0	16.0	15.0	13.0	14.0
16	13.5	12.5	12.5	19.5	16.5	18.0	17.5	14.0	16.0	13.5	11.0	12.5
17	15.0	11.5	13.0	16.5	14.0	14.5	18.0	14.0	16.0	13.0	10.5	12.0
18	17.0	11.5	14.0	14.5	13.5	14.0	18.5	14.5	17.0	13.5	11.0	12.0
19	18.0	13.0	15.5	17.0	13.0	15.0	19.0	15.5	17.5	13.0	11.0	12.0
20	18.0	14.5	16.0	17.0	13.5	15.5	19.5	16.0	17.5	13.5	11.0	12.0
21	15.5	14.0	14.5	15.5	14.0	14.5	19.0	15.5	17.5	14.0	11.0	12.5
22	17.5	12.0	14.5	15.5	13.5	14.5	18.0	15.5	17.0	14.5	11.5	13.0
23	17.5	12.5	15.5	17.0	13.0	15.0	18.0	14.5	16.5	14.0	12.0	13.0
24	19.0	13.5	16.0	17.5	13.5	15.5	18.5	15.0	17.0	14.0	12.0	13.0
25	20.5	15.0	18.0	18.0	14.5	16.5	18.5	15.0	17.0	15.0	13.0	14.0
26	21.5	16.5	19.0	18.5	14.5	16.5	18.5	15.0	17.0	15.0	13.0	14.0
27	21.5	17.5	19.5	18.5	14.5	16.5	19.0	15.5	17.5	13.5	11.0	12.5
28	21.5	17.0	19.5	18.5	14.5	17.0	19.5	16.0	18.0	13.0	11.0	12.0
29	22.0	18.0	20.0	18.5	15.0	17.0	20.0	16.5	18.0	13.5	11.0	12.0
30	21.5	17.5	20.0	18.5	16.0	17.5	20.0	16.5	18.0	14.0	11.0	12.5
31	---	---	---	18.5	15.0	17.0	20.0	17.0	18.5	---	---	---
MONTH	22.0	9.0	16.0	22.5	13.0	17.0	21.0	14.0	17.5	18.5	10.5	13.5
YEAR	22.5	.0	9.5									

14361900 APPLEGATE LAKE NEAR COPPER, OR

LOCATION.--Lat 42°03'25", long 123°06'30", in SE 1/4 sec.25, T.40 S., R.4 W., Jackson County, Hydrologic Unit 17100309, in outlet structure of Applegate Dam on Applegate River, 2.5 mi northeast of former town of Copper, 13 mi south of Ruch and at mile 46.3.

DRAINAGE AREA.--223 mi^2.

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam completed in October 1980. Storage began Dec. 2, 1980. Total capacity, 82,200 acre-ft between elevations 1,763.0 ft and 1,987.0 ft, maximum pool elevation. Elevation of gated spillway crest, 1,943.7 ft. Usable contents, 75,200 acre-ft between elevations 1,854.0 ft and 1,987.0 ft. Water is used for flood control, recreation, pollution abatement, irrigation, and other purposes.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 82,210 acre-ft May 6, 1982, elevation, 1,987.01 ft; minimum contents since first filling, 11,770 acre-ft Nov. 11, 1981, elevation, 1,873.12 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 82,190 acre-ft May 15, elevation, 1,986.99 ft; minimum contents, 14,660 acre-ft Dec. 22, elevation, 1,882.35 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

1,860.0	8,330	1,920.0	30,960	1,987.0	82,200
1,880.0	13,890	1,940.0	43,090		
1,900.0	21,380	1,960.0	58,020		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1929.43	1907.63	1887.24	1885.24	1901.60	1931.52	1961.89	1986.79	1983.30	1969.54	1960.18	1949.72
2	1928.65	1907.11	1887.00	1886.57	1906.24	1932.13	1962.71	1986.77	1982.97	1969.26	1959.89	1949.35
3	1927.72	1906.42	1886.73	1888.74	1905.54	1933.81	1963.73	1986.79	1982.63	1968.97	1959.60	1948.99
4	1926.80	1905.55	1886.49	1889.82	1905.10	1935.50	1964.59	1986.92	1982.25	1968.69	1959.31	1948.63
5	1925.90	1904.64	1886.55	1890.36	1904.92	1938.69	1965.35	1986.96	1981.87	1968.40	1959.01	1948.26
6	1924.98	1903.68	1886.54	1890.61	1905.20	1941.22	1966.03	1986.94	1981.48	1968.10	1958.70	1947.89
7	1924.13	1902.78	1886.43	1890.70	1906.33	1942.95	1966.67	1986.92	1981.09	1967.79	1958.40	1947.54
8	1923.22	1901.86	1886.24	1890.69	1907.52	1944.40	1967.45	1986.84	1980.71	1967.48	1958.09	1947.18
9	1922.21	1900.93	1885.99	1890.61	1908.61	1945.68	1968.25	1986.84	1980.31	1967.15	1957.78	1946.82
10	1921.35	1900.05	1885.68	1890.52	1909.67	1946.80	1969.18	1986.87	1979.90	1966.84	1957.47	1946.44
11	1920.58	1899.10	1885.34	1890.40	1911.28	1948.00	1970.17	1986.96	1979.47	1966.52	1957.16	1946.07
12	1919.80	1898.12	1884.97	1890.34	1913.20	1952.13	1970.94	1986.96	1979.01	1966.20	1956.82	1945.70
13	1919.01	1897.12	1884.77	1890.25	1916.78	1954.18	1971.67	1986.96	1978.55	1965.87	1956.48	1945.33
14	1918.22	1896.13	1884.64	1890.12	1918.32	1954.09	1972.50	1986.96	1978.07	1965.54	1956.13	1944.95
15	1917.41	1895.15	1884.39	1889.94	1919.57	1953.82	1973.43	1986.96	1977.60	1965.21	1955.78	1944.56
16	1916.63	1894.12	1884.11	1889.67	1920.30	1953.62	1974.39	1986.93	1977.13	1964.86	1955.44	1944.17
17	1915.94	1893.05	1883.78	1889.45	1921.27	1953.47	1975.41	1986.93	1976.66	1964.57	1955.08	1943.79
18	1915.20	1891.97	1883.46	1889.21	1922.47	1953.53	1976.29	1986.93	1976.17	1964.31	1954.73	1943.41
19	1914.42	1891.00	1883.16	1888.92	1923.45	1953.89	1976.96	1986.92	1975.67	1964.02	1954.37	1943.02
20	1913.63	1890.25	1882.81	1888.62	1924.51	1954.47	1977.58	1986.79	1975.17	1963.71	1954.03	1942.63
21	1912.81	1890.63	1882.41	1888.30	1925.65	1955.08	1978.31	1986.60	1974.70	1963.46	1953.67	1942.24
22	1911.99	1891.24	1882.71	1888.24	1926.66	1955.59	1979.38	1986.37	1974.21	1963.29	1953.32	1941.85
23	1911.15	1890.96	1883.13	1888.51	1927.61	1956.26	1980.55	1986.10	1973.70	1963.03	1952.96	1941.45
24	1910.31	1890.30	1883.31	1889.54	1928.46	1956.97	1981.59	1985.82	1973.19	1962.74	1952.61	1941.07
25	1909.46	1889.55	1883.27	1894.41	1929.19	1957.66	1982.56	1985.59	1972.68	1962.45	1952.24	1940.67
26	1908.64	1888.57	1883.18	1899.36	1929.83	1958.32	1983.65	1985.32	1972.15	1962.13	1951.89	1940.28
27	1907.97	1887.49	1883.02	1900.76	1930.42	1958.92	1984.85	1985.00	1971.62	1961.80	1951.53	1939.89
28	1907.19	1887.17	1882.78	1901.04	1930.99	1959.49	1985.96	1984.64	1971.07	1961.47	1951.16	1939.50
29	1906.86	1887.26	1882.90	1900.27	---	1960.03	1986.46	1984.24	1970.52	1961.14	1950.80	1939.05
30	1908.01	1887.30	1883.01	1899.82	---	1960.57	1986.68	1983.84	1969.94	1960.81	1950.44	1938.22
31	1908.00	---	1883.26	1899.54	---	1961.18	---	1983.56	---	1960.46	1950.08	---
MAX	1929.43	1907.63	1887.24	1901.04	1930.99	1961.18	1986.68	1986.96	1983.30	1969.54	1960.18	1949.72
MIN	1906.86	1887.17	1882.41	1885.24	1901.60	1931.52	1961.89	1983.56	1969.94	1960.46	1950.08	1938.22
(†)	24950	16380	14970	21180	37260	58980	81890	78850	66380	58400	50300	41890
(‡)	-11800	-8570	-1410	+6210	+16080	+21720	+22910	-3040	-12470	-7980	-8100	-8410

CAL YR 1986 MAX 1984.17 MIN 1876.90 AC-FT‡ +2120
WTR YR 1987 MAX 1986.96 MIN 1882.41 AC-FT‡ +5140

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

14362000 APPLEGATE RIVER NEAR COPPER, OR

LOCATION.--Lat 42°03'50", long 123°06'37", in SW 1/4 NW 1/4 sec.30, T.40 S., R.3 W., Jackson County, Hydrologic Unit 17100309, U.S. Corps of Engineers land, on left bank 0.1 mi downstream from Brushy Gulch, 0.6 mi downstream from Applegate Dam, 3.1 mi northeast of former town of Copper, and at mile 45.7.

DRAINAGE AREA.--225 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WDR OR-78-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,747.51 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, at site 0.6 mi upstream at datum 12.15 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since December 1980 by Applegate Lake (station 14361900). Some storage during winter in Squaw Lakes Reservoir, capacity, 1,100 acre-ft on Squaw Creek upstream from station. Diversions upstream from station from Carberry Creek for irrigation in Thompson Creek basin.

AVERAGE DISCHARGE.--49 years, 451 ft^3/s, 326,700 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft^3/s Jan. 15, 1974, gage height, 25.38 ft, site and datum then in use, from high-water mark in well, from rating curve extended above 12,000 ft^3/s on basis of four slope-area measurements of peak flows made in 1950, 1955, 1964, and 1974; minimum discharge, 1.5 ft^3/s Dec. 20, 1980, result of regulation at Applegate dam, 0.6 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft^3/s Feb. 2, gage height, 5.35 ft; minimum discharge, 85 ft^3/s Feb. 20; minimum daily, 97 ft^3/s Jan. 23, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	258	161	180	500	117	181	514	299	236	164	160
2	334	256	182	180	1130	117	191	481	313	182	156	160
3	363	271	181	182	1310	136	181	431	315	182	155	160
4	360	304	181	184	926	177	171	401	315	182	154	160
5	346	303	181	184	699	175	171	521	315	182	154	160
6	344	302	180	184	500	177	184	615	315	185	154	159
7	320	303	180	184	260	178	196	619	316	190	154	158
8	327	300	180	184	218	179	197	617	315	191	154	157
9	348	297	180	184	218	180	198	523	315	191	152	156
10	303	296	180	184	218	180	195	452	314	190	154	156
11	273	294	180	184	159	181	191	387	311	189	154	156
12	273	293	180	184	105	298	191	415	314	189	161	156
13	273	290	178	184	269	756	183	388	314	189	167	156
14	273	290	178	184	524	1250	176	354	314	190	167	156
15	272	288	178	185	524	1090	176	353	312	189	167	156
16	270	286	178	184	524	917	175	346	312	190	167	158
17	270	287	178	184	368	830	173	297	312	190	167	157
18	269	285	178	184	214	726	174	265	318	189	165	156
19	267	285	178	184	214	522	173	266	313	188	165	156
20	267	256	178	184	151	376	175	300	303	187	165	156
21	265	209	178	184	101	321	176	316	303	185	165	156
22	264	263	178	140	101	321	175	327	303	182	162	156
23	262	314	178	97	101	251	162	345	303	183	162	156
24	262	341	178	97	102	194	147	358	303	182	162	156
25	260	354	178	98	110	178	147	358	303	181	161	156
26	259	354	178	285	116	173	147	335	303	183	160	155
27	259	352	178	679	116	173	199	343	304	182	160	154
28	259	247	178	802	116	175	253	358	303	182	165	154
29	257	158	178	800	---	175	429	355	303	180	162	170
30	259	145	178	616	---	173	549	355	308	180	160	311
31	259	---	178	500	---	173	---	340	---	180	160	---
TOTAL	8955	8481	5528	7969	9896	10869	6036	12335	9291	5801	4975	4873
MEAN	289	283	178	257	353	351	201	398	310	187	160	162
MAX	363	354	182	802	1310	1250	549	619	318	236	167	311
MIN	257	145	161	97	101	117	147	265	299	180	152	154
AC-FT	17760	16820	10960	15810	19630	21560	11970	24470	18430	11510	9870	9670
MEAN†	97.1	139	155	358	643	704	586	349	100	57.4	28.8	21.2
AC-FT†	5970	8250	9550	22020	35710	43280	34880	21430	5960	3530	1770	1260

CAL YR 1986 TOTAL 146002 MEAN 400 MAX 4330 MIN 92 AC-FT 289600 MEAN† 403 AC-FT† 291700
WTR YR 1987 TOTAL 95009 MEAN 260 MAX 1310 MIN 97 AC-FT 188500 MEAN† 267 AC-FT† 193600

† Adjusted for change in contents of Applegate Lake.

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1980 to September 1987 (discontinued).
pH: September 1980 to September 1987 (discontinued).
WATER TEMPERATURE: January 1977 to current year.
DISSOLVED OXYGEN: September 1980 to September 1987 (discontinued).

INSTRUMENTATION.--Water-quality monitor since September 1980.

REMARKS.--Results of stratified releases from Applegate Dam by Corps of Engineers and testing of the temperature-mixing outlet at the dam on Sept. 4, 1986, resulted in some of the annual extremes occurring on that date.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 188 microsiemens Sept. 13, 1980; minimum, 61 microsiemens Dec. 3, 1980, Dec. 20, 1981, June 19, 20, 1983.
pH: Maximum, 9.0 units Sept. 4, 1980; minimum recorded, 7.1 units Oct. 8-10, 13, 16, 17, 1986.
WATER TEMPERATURE: Maximum, 26.5°C Aug. 7, 1978; minimum, 0.0°C on many days during winter periods prior to filling of Applegate Lake.
DISSOLVED OXYGEN: Maximum, 15.2 mg/l Feb. 17, 18, 1986; minimum, 4.9 mg/l Sept. 28-30, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 115 microsiemens Feb. 18; minimum recorded, 63 microsiemens May 16, 18.
pH: Maximum recorded, 8.1 units Aug. 26, 27, Sept. 14; minimum recorded, 7.1 units Oct. 8-10, 13, 16, 17.
WATER TEMPERATURE: Maximum, 15.5°C Sept. 27-29; minimum, 4.0°C on several days in January.
DISSOLVED OXYGEN: Maximum recorded, 13.1 mg/l Mar. 13; minimum recorded, 7.2 mg/l Oct. 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
NOV											
06...	1330	302	119	7.8	11.5	--	1	1	<100	<1	<10
AUG											
28...	1300	165	84	7.9	11.5	9.0	1	1	<100	<1	<10

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
NOV										
06...	<1	6	150	13	40	0.1	0.2	<1	<1	10
AUG										
28...	<1	3	50	<5	<10	0.1	0.1	<1	<1	<10

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV				
06...	1210	302	2	1.6
26...	1255	354	2	1.9
DEC				
17...	1410	178	2	0.96
JAN				
29...	1235	800	8	17
FEB				
18...	1435	214	4	2.3
MAR				
09...	1430	180	3	1.5

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
APR				
10...	1300	195	2	1.1
20...	1250	175	80	38
MAY				
15...	1300	353	68	65
JUN				
19...	1315	313	45	38
JUL				
23...	1200	183	5	2.5

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1							---	---	---	106	105	105
2							---	---	---	106	105	105
3							---	---	---	---	---	---
4							---	---	---	104	102	103
5							---	---	---	104	101	103
6							---	---	---	103	100	100
7							---	---	---	103	100	102
8							---	---	---	107	103	106
9							---	---	---	106	103	104
10							---	---	---	104	103	103
11							---	---	---	105	103	104
12							---	---	---	107	105	106
13							---	---	---	108	106	107
14							---	---	---	108	106	107
15							---	---	---	111	107	109
16							---	---	---	111	110	110
17							---	---	---	110	109	110
18							---	---	---	113	109	111
19							---	---	---	112	110	111
20							---	---	---	112	110	111
21							---	---	---	114	111	112
22							---	---	---	112	109	111
23							---	---	---	109	108	109
24							---	---	---	108	108	108
25							---	---	---	110	108	109
26							---	---	---	111	108	109
27							---	---	---	109	108	108
28							---	---	---	108	102	105
29							---	---	---	102	100	101
30							---	---	---	105	99	102
31							106	104	105	103	94	98
MONTH							---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	99	94	96	104	97	101	76	74	75	77	74	76
2	98	93	95	106	102	104	76	73	75	74	72	73
3	93	92	93	105	98	102	75	74	75	74	72	72
4	95	92	94	---	---	---	76	74	75	73	72	72
5	98	95	97	---	---	---	76	74	75	72	70	71
6	101	96	98	100	95	97	77	75	76	72	70	71
7	106	101	104	---	96	---	79	76	77	---	---	---
8	108	105	106	---	---	---	79	75	77	---	---	---
9	108	103	105	---	---	---	80	77	78	70	68	70
10	106	101	103	---	---	---	81	77	79	70	68	69
11	106	90	97	---	---	---	79	76	77	69	67	68
12	93	87	90	---	---	---	81	77	79	68	67	68
13	104	90	95	---	---	---	82	77	79	68	66	67
14	97	94	95	---	---	---	81	77	80	68	66	68
15	96	94	95	---	---	---	82	78	80	68	64	66
16	97	94	95	---	---	---	83	81	82	65	63	64
17	99	95	97	---	---	---	84	80	82	65	64	65
18	115	96	103	77	73	75	84	80	82	65	63	65
19	99	94	96	74	70	72	85	84	84	67	64	65
20	100	92	94	73	69	71	85	82	84	66	65	66
21	93	91	92	72	70	71	86	82	83	67	65	66
22	95	92	94	74	71	73	84	81	83	67	65	67
23	98	93	95	76	73	74	83	80	82	68	66	67
24	98	93	95	79	75	77	83	79	81	68	67	68
25	104	94	100	79	76	77	83	80	81	69	67	68
26	106	99	103	77	75	76	82	78	80	69	67	68
27	104	97	100	78	75	76	80	76	79	70	68	69
28	102	96	99	78	75	76	79	77	78	70	68	69
29	---	---	---	76	74	75	78	76	76	72	70	71
30	---	---	---	77	73	75	78	75	77	75	71	74
31	---	---	---	76	74	75	---	---	---	74	71	72
MONTH	115	87	97	---	---	---	86	73	79	---	---	---

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	73	71	72	77	73	75	87	82	84	83	81	82
2	75	73	74	77	72	75	85	83	83	---	82	---
3	75	74	75	76	73	75	84	82	83	---	---	---
4	77	75	75	79	74	75	85	82	83	---	---	---
5	76	71	74	78	73	75	85	82	84	---	---	---
6	76	74	75	78	73	76	85	82	84	---	---	---
7	76	74	75	77	74	75	85	82	84	---	---	---
8	76	74	75	78	75	76	85	83	84	---	---	---
9	77	75	76	78	75	77	84	80	83	---	---	---
10	79	75	77	79	76	77	82	80	81	91	89	90
11	79	76	77	80	77	78	83	81	82	92	89	91
12	77	75	76	80	77	79	83	80	81	92	90	91
13	78	77	78	81	79	80	82	80	81	92	90	92
14	78	75	77	83	79	80	82	80	81	99	92	95
15	79	77	78	83	80	82	82	80	81	97	95	96
16	80	77	79	83	81	82	62	80	81	98	95	97
17	80	79	79	84	82	83	82	80	81	99	96	97
18	82	78	80	87	82	84	83	81	82	99	96	97
19	80	74	78	86	83	84	84	80	82	99	96	97
20	80	74	76	86	84	85	83	81	82	98	96	97
21	76	74	75	86	84	86	84	81	82	99	96	98
22	77	74	76	87	85	85	84	82	83	100	96	98
23	78	75	77	88	85	87	84	81	83	100	98	99
24	79	76	77	87	85	86	84	82	83	100	98	99
25	79	77	78	86	82	85	85	82	83	102	99	100
26	78	74	77	85	83	84	85	83	84	102	99	100
27	78	76	77	85	82	83	85	80	84	102	100	101
28	79	76	78	85	82	84	85	83	84	103	100	102
29	79	76	78	85	82	84	84	81	82	104	102	103
30	78	74	77	85	84	84	83	81	82	104	94	98
31	---	---	---	85	83	94	83	81	82	---	---	---
MONTH	82	71	77	88	72	81	87	80	83	---	---	---

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.6	7.5	7.9	7.7	7.8	7.7	7.8	7.7	7.7	7.7	7.8	7.6
2	7.6	7.3	7.9	7.7	7.8	7.7	7.8	7.7	7.7	7.6	7.8	7.7
3	7.4	7.3	7.9	7.7	7.8	7.7	7.7	7.7	7.6	7.6	7.8	7.6
4	7.3	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.6	7.6	---	---
5	7.3	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	---	---
6	7.3	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	7.7	7.6
7	7.3	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.6
8	7.2	7.1	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.6
9	7.2	7.1	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	7.8	7.6
10	7.3	7.1	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	---	---
11	7.3	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	---	---
12	7.3	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	---	---
13	7.3	7.1	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	7.7	7.6
14	---	---	7.7	7.7	7.8	7.7	7.8	7.7	7.7	7.6	7.6	7.6
15	---	---	7.7	7.7	7.8	7.7	7.8	7.7	7.7	7.6	7.7	7.6
16	7.3	7.1	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	7.6	7.6
17	7.3	7.1	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6	7.7	7.6
18	7.3	7.2	7.7	7.7	7.8	7.7	7.8	7.7	7.7	7.7	7.7	7.6
19	7.3	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6
20	7.3	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.6	7.7	7.6
21	7.4	7.2	7.8	7.7	7.8	7.7	7.8	7.7	7.8	7.6	7.7	7.6
22	7.4	7.3	7.7	7.7	7.8	7.7	7.9	7.7	7.8	7.7	7.7	7.7
23	7.5	7.3	7.8	7.7	7.8	7.7	7.9	7.7	7.8	7.7	7.7	7.7
24	7.6	7.4	7.7	7.7	7.8	7.7	7.9	7.7	7.8	7.7	7.8	7.7
25	7.8	7.6	7.7	7.7	7.8	7.7	7.9	7.7	7.8	7.7	7.7	7.6
26	7.8	7.6	7.7	7.6	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.6
27	7.8	7.6	7.7	7.6	7.8	7.7	7.7	7.7	7.8	7.6	7.7	7.6
28	7.7	7.6	7.7	7.6	7.8	7.7	7.7	7.7	7.8	7.7	7.7	7.6
29	7.8	7.6	7.8	7.7	7.8	7.7	7.7	7.7	---	---	7.7	7.6
30	7.8	7.6	7.8	7.7	7.8	7.7	7.7	7.7	---	---	7.7	7.6
31	7.9	7.7	---	---	7.8	7.7	7.7	7.7	---	---	7.7	7.6
MONTH	---	---	7.9	7.6	7.8	7.7	7.9	7.7	7.8	7.6	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.5	7.8	7.6	7.9	7.4
2	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.5	7.8	7.6	7.9	---
3	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.5	7.8	7.6	---	---
4	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.6	7.8	7.6	---	---
5	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.6	7.8	7.6	---	---
6	7.7	7.6	7.6	7.6	7.7	7.6	7.7	7.5	7.8	7.6	---	---
7	---	7.6	7.6	7.6	7.7	7.6	7.6	7.5	7.8	7.6	---	---
8	7.7	7.6	7.6	7.6	7.7	7.6	7.6	7.6	7.8	7.6	---	---
9	7.7	7.6	7.6	7.6	7.7	7.6	7.7	7.6	7.9	7.5	7.9	---
10	7.7	7.6	7.6	7.6	7.7	7.6	7.7	7.5	7.8	7.5	8.0	7.6
11	7.7	7.6	7.6	7.6	7.7	7.6	7.7	7.6	7.9	7.5	8.0	7.6
12	7.7	7.6	7.6	7.6	7.7	7.6	7.7	7.6	7.8	7.5	8.0	7.6
13	7.7	7.6	7.6	7.6	7.7	7.6	7.7	7.5	7.8	7.5	7.9	7.6
14	7.7	7.6	7.6	7.6	7.7	7.6	7.7	7.5	7.9	7.5	8.1	7.6
15	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.5	7.9	7.5	8.0	7.6
16	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.6	7.9	7.5	7.9	7.6
17	7.7	7.6	7.7	7.6	7.7	7.7	7.7	7.6	7.9	7.5	8.0	7.6
18	7.7	7.6	7.7	7.6	7.7	7.6	7.8	7.6	7.9	7.5	8.0	7.6
19	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.6	8.0	7.5	7.9	7.6
20	7.7	7.6	7.7	7.6	7.8	7.6	7.7	7.6	8.0	7.5	7.9	7.6
21	7.8	7.6	7.7	7.6	7.7	7.6	7.7	7.6	8.0	7.5	7.9	7.6
22	7.8	7.6	7.7	7.6	7.7	7.6	7.7	7.6	8.0	7.5	7.9	7.6
23	7.8	7.7	7.7	7.6	7.7	7.6	7.7	7.6	8.0	7.5	7.9	7.6
24	7.8	7.6	7.7	7.6	7.7	7.6	7.7	7.6	8.0	7.5	7.9	7.6
25	7.8	7.6	7.7	7.6	7.7	7.6	7.7	7.6	8.0	7.5	7.9	7.6
26	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.5	8.1	7.5	7.9	7.6
27	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.6	8.1	7.5	7.9	7.6
28	7.7	7.6	7.7	7.6	7.7	7.6	7.7	7.6	8.0	7.4	7.9	7.7
29	7.7	7.6	7.7	7.6	7.7	7.5	7.7	7.6	8.0	7.4	7.9	7.7
30	7.7	7.6	7.8	7.6	7.7	7.5	7.7	7.6	8.0	7.4	7.7	7.5
31	---	---	7.7	7.6	---	---	7.8	7.6	8.0	7.4	---	---
MONTH	---	7.6	7.8	7.6	7.8	7.5	7.8	7.5	8.1	7.4	---	---

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.0	11.5	11.5	11.5	11.0	11.5	8.0	7.5	8.0	5.0	5.0	5.0
2	11.5	9.5	10.5	11.5	11.0	11.5	7.5	7.5	7.5	5.0	5.0	5.0
3	10.0	9.0	9.5	11.5	11.0	11.5	7.5	7.0	7.0	5.5	5.0	---
4	9.0	7.5	8.0	11.5	11.0	11.0	7.5	7.0	7.0	5.5	5.0	5.0
5	8.0	7.0	7.5	11.5	11.0	11.0	7.5	7.0	7.0	5.5	5.0	5.0
6	7.5	7.0	7.0	11.5	11.0	11.0	7.5	7.0	7.0	5.0	5.0	5.0
7	7.5	7.0	7.0	11.0	11.0	11.0	7.5	7.0	7.0	5.5	5.0	5.0
8	7.5	7.0	7.5	11.5	11.0	11.0	7.5	7.0	7.0	5.5	5.0	5.0
9	7.5	7.0	7.5	11.0	11.0	11.0	7.5	7.0	7.0	5.0	4.5	5.0
10	8.0	7.5	7.5	11.0	11.0	11.0	7.0	6.5	6.5	5.0	4.5	4.5
11	8.0	7.5	7.5	11.0	11.0	11.0	6.5	6.0	6.5	5.0	4.5	4.5
12	8.0	7.5	7.5	11.0	10.5	11.0	6.5	6.0	6.0	4.5	4.5	4.5
13	8.0	7.5	8.0	11.0	10.5	10.5	6.0	6.0	6.0	4.5	4.0	4.5
14	---	---	---	10.5	10.5	10.5	6.0	6.0	6.0	4.5	4.0	4.5
15	---	---	---	10.5	10.5	10.5	6.0	6.0	6.0	4.5	4.0	4.5
16	8.5	8.0	8.5	10.5	10.0	10.5	6.5	6.0	6.0	5.0	4.5	4.5
17	9.0	8.5	8.5	10.5	10.0	10.0	6.0	6.0	6.0	4.5	4.5	4.5
18	9.5	9.0	9.0	10.5	10.0	10.0	6.0	6.0	6.0	4.5	4.0	4.5
19	10.0	9.0	9.5	10.5	10.0	10.0	6.0	5.5	5.5	4.5	4.0	4.5
20	10.5	9.5	10.0	10.5	10.0	10.0	5.5	5.5	5.5	4.5	4.0	4.0
21	11.0	10.5	10.5	10.5	10.0	10.0	5.5	5.5	5.5	4.5	4.0	4.0
22	11.5	11.0	11.5	10.0	9.5	9.5	6.0	5.5	6.0	4.5	4.0	4.0
23	12.0	11.5	12.0	9.5	9.0	9.0	6.0	5.5	6.0	4.5	4.0	4.0
24	12.5	12.0	12.5	9.0	9.0	9.0	6.0	5.5	5.5	4.5	4.0	4.0
25	12.5	12.0	12.5	9.0	9.0	9.0	5.5	5.5	5.5	4.5	4.0	4.0
26	13.0	12.5	12.5	9.0	8.5	8.5	5.5	5.0	5.5	4.5	4.0	4.0
27	13.0	12.5	12.5	9.0	8.5	8.5	5.5	5.0	5.0	4.5	4.0	4.0
28	13.0	12.5	12.5	9.0	8.5	8.5	5.5	5.0	5.0	4.0	4.0	4.0
29	13.0	12.5	12.5	9.0	8.0	8.5	5.5	5.0	5.0	4.0	4.0	4.0
30	13.0	12.5	12.5	8.5	8.0	8.0	5.0	5.0	5.0	4.5	4.0	4.0
31	12.5	11.5	11.5	---	---	---	5.5	5.0	5.0	4.5	4.0	4.5
MONTH	---	---	---	11.5	8.0	10.0	8.0	5.0	6.0	5.5	4.0	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.5	4.5	5.5	5.0	5.0	6.0	5.5	5.5	9.0	8.5	9.0
2	4.5	4.5	4.5	6.0	5.0	5.5	6.0	5.5	5.5	9.5	8.5	9.0
3	4.5	4.5	4.5	6.0	5.0	5.5	6.0	5.5	5.5	9.0	8.5	8.5
4	5.0	4.5	4.5	---	---	---	6.5	5.5	6.0	9.5	8.5	9.0
5	5.0	4.5	5.0	---	---	---	6.5	5.5	6.0	9.5	8.5	9.0
6	5.0	5.0	5.0	6.0	5.0	5.5	6.5	5.5	6.0	9.5	8.5	9.0
7	5.5	5.0	5.0	6.0	5.0	5.5	7.0	6.0	6.5	9.5	8.5	9.0
8	5.5	5.0	5.0	6.0	5.0	5.5	7.0	6.0	6.5	9.5	9.0	9.0
9	5.5	5.0	5.0	5.5	5.0	5.5	7.0	6.0	6.5	10.0	9.5	9.5
10	5.5	5.0	5.0	---	---	---	7.5	6.0	6.5	10.0	9.0	9.5
11	5.5	5.0	5.0	---	---	---	7.0	6.0	6.5	10.0	9.0	9.5
12	5.5	5.0	5.5	---	---	---	7.0	6.0	6.5	10.0	9.0	9.5
13	5.5	5.0	5.0	6.0	5.0	5.5	7.5	6.0	6.5	10.0	9.5	10.0
14	5.5	5.0	5.0	5.5	5.0	5.5	7.0	6.5	6.5	10.5	9.5	10.0
15	5.5	5.0	5.5	5.5	5.5	5.5	7.5	6.5	7.0	10.5	9.5	10.0
16	5.5	5.5	5.5	5.5	5.5	5.5	7.5	6.5	7.0	10.5	10.0	10.5
17	6.0	5.5	5.5	5.5	5.5	5.5	8.0	7.0	7.0	11.0	9.5	10.5
18	6.0	5.5	5.5	5.5	5.5	5.5	7.5	6.5	7.0	11.0	10.0	10.5
19	6.0	5.5	5.5	6.0	5.5	5.5	8.5	7.5	8.0	11.0	10.0	10.5
20	6.0	5.5	5.5	5.5	5.5	5.5	8.5	7.0	8.0	11.0	10.0	11.0
21	5.5	5.5	5.5	5.5	5.5	5.5	9.5	7.5	8.5	11.5	10.5	11.0
22	6.0	5.5	5.5	5.5	5.5	5.5	10.0	8.5	9.0	11.5	11.0	11.0
23	5.5	5.0	5.5	5.5	5.0	5.5	9.5	8.5	9.0	11.5	10.5	11.0
24	6.0	5.0	5.5	6.0	5.0	5.5	9.5	8.5	9.0	11.5	11.0	11.5
25	6.0	5.0	5.5	6.0	5.0	5.5	10.0	8.5	9.0	11.5	11.0	11.0
26	6.0	5.0	5.5	6.0	5.0	5.5	10.0	8.5	9.0	11.5	10.5	11.0
27	6.0	5.0	5.5	6.0	5.0	5.5	9.5	8.0	9.0	12.0	11.0	11.5
28	6.0	5.0	5.0	6.0	5.0	5.5	8.5	8.0	8.0	12.0	11.0	11.5
29	---	---	---	6.0	5.0	5.5	8.5	7.5	8.0	12.5	11.5	12.0
30	---	---	---	6.0	5.0	5.5	9.5	8.0	9.0	14.0	11.5	13.0
31	---	---	---	6.0	5.5	5.5	---	---	---	12.5	11.5	11.5
MONTH	6.0	4.5	5.0	---	---	---	10.0	5.5	7.5	14.0	8.5	10.5

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.0	11.0	12.0	13.5	12.0	12.5	14.5	12.5	13.5	13.5	13.0	13.5
2	13.0	12.0	12.5	13.5	12.5	13.0	13.5	12.5	13.0	---	---	---
3	13.0	12.5	12.5	13.5	12.5	13.0	14.0	12.5	13.5	---	---	---
4	13.5	12.5	13.0	14.5	12.0	13.5	14.0	13.0	13.5	---	---	---
5	13.0	12.0	12.5	14.5	12.0	13.0	14.0	13.0	13.5	---	---	---
6	13.5	12.5	13.0	14.0	11.0	12.5	14.0	13.0	13.5	---	---	---
7	13.5	13.0	13.0	12.0	11.0	11.5	14.0	13.0	13.5	---	---	---
8	13.5	12.5	13.0	12.5	11.5	12.0	14.5	13.5	14.0	---	---	---
9	13.5	12.5	13.0	12.5	11.5	12.0	14.5	12.5	13.5	---	---	---
10	13.5	11.5	13.0	13.0	11.5	12.0	13.5	12.5	13.0	13.0	12.5	13.0
11	13.5	12.5	13.0	13.0	11.5	12.5	13.5	12.5	13.0	13.5	12.5	13.0
12	13.5	12.5	13.0	13.0	12.0	12.5	13.5	12.0	13.0	13.5	12.5	13.0
13	13.5	13.0	13.5	13.0	12.5	13.0	13.0	12.5	12.5	13.5	13.0	13.0
14	13.5	12.5	13.0	13.5	12.5	13.0	13.0	12.5	12.5	15.0	13.0	14.0
15	13.5	12.5	13.0	13.5	12.5	13.0	13.0	12.5	13.0	15.0	14.0	14.5
16	13.5	13.0	13.0	13.5	12.5	13.0	13.5	12.5	13.0	15.0	14.0	14.5
17	13.5	13.0	13.5	13.5	13.0	13.5	13.5	12.5	13.0	15.0	14.0	14.5
18	14.0	13.0	13.5	14.5	13.0	13.5	13.5	12.5	13.0	15.0	14.0	14.5
19	13.5	12.0	13.0	14.0	13.0	13.5	13.5	12.5	13.0	15.0	14.0	14.5
20	15.0	12.0	13.0	14.0	13.5	14.0	13.5	12.5	13.0	15.0	14.0	14.5
21	13.0	11.5	12.5	14.0	13.5	13.5	13.5	13.0	13.0	15.0	14.0	14.5
22	13.0	12.5	13.0	14.0	13.0	13.5	13.5	13.0	13.0	15.0	14.0	14.5
23	13.5	12.5	13.0	14.0	13.0	13.5	13.5	13.0	13.0	15.0	14.5	14.5
24	13.5	13.0	13.5	14.0	13.5	13.5	14.0	13.0	13.5	15.0	14.0	14.5
25	14.0	13.5	13.5	14.0	12.5	13.0	14.0	13.0	13.5	15.0	14.5	14.5
26	14.0	12.0	13.5	13.5	12.5	13.0	14.0	13.0	13.5	15.0	14.0	14.5
27	14.0	13.0	13.5	13.0	12.5	13.0	14.0	11.0	13.5	15.5	14.0	14.5
28	14.0	13.0	13.5	13.5	12.5	13.0	14.0	13.5	14.0	15.5	14.5	14.5
29	14.5	13.5	14.0	13.5	12.5	13.0	14.0	13.0	13.5	15.5	14.5	15.0
30	14.5	12.0	13.0	13.5	13.0	13.0	14.0	13.0	13.5	15.0	12.5	13.5
31	---	---	---	14.0	13.0	13.5	13.5	13.0	13.5	---	---	---
MONTH	15.0	11.0	13.0	14.5	11.0	13.0	14.5	11.0	13.5	---	---	---

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBFR			DECEMBER			JANUARY		
1	10.8	10.3	10.5	9.2	8.9	9.0	9.0	8.6	8.8	---	---	---
2	11.1	10.2	10.7	9.2	9.0	9.1	9.0	8.6	8.7	---	---	---
3	11.6	10.8	11.2	9.3	9.0	9.1	9.1	9.0	9.0	---	---	---
4	11.9	11.0	11.4	9.4	9.1	9.2	9.1	8.9	9.0	---	---	---
5	11.9	11.2	11.5	9.5	9.2	9.3	9.0	8.8	8.9	---	---	---
6	11.9	10.8	11.4	9.5	8.9	9.2	9.0	8.8	8.9	---	---	---
7	11.0	10.4	10.7	9.0	8.8	8.9	8.8	8.6	8.7	---	---	---
8	10.7	10.3	10.5	8.9	8.6	8.8	8.6	8.5	8.6	---	---	---
9	10.6	10.2	10.4	8.9	8.6	8.7	8.6	8.5	8.5	---	---	---
10	10.5	10.0	10.2	9.0	8.7	8.8	---	---	---	---	---	---
11	10.5	10.0	10.1	8.9	8.6	8.7	---	---	---	---	---	---
12	10.4	9.8	10.0	8.7	8.5	8.6	---	---	---	---	---	---
13	10.2	9.7	9.8	8.8	8.5	8.6	---	---	---	---	---	---
14	---	---	---	8.8	8.5	8.6	---	---	---	---	---	---
15	---	---	---	8.8	8.6	8.7	---	---	---	---	---	---
16	10.6	10.0	10.2	8.9	8.6	8.7	---	---	---	10.9	10.6	10.7
17	10.5	9.8	10.0	8.8	8.5	8.6	---	---	---	10.9	10.6	10.7
18	10.3	9.7	9.9	8.7	8.5	8.6	---	---	---	10.9	10.6	10.8
19	10.1	9.6	9.8	8.6	8.0	8.4	---	---	---	11.0	10.5	10.7
20	9.9	9.1	9.5	8.1	7.9	8.0	---	---	---	10.5	10.0	10.3
21	9.4	8.9	9.1	8.2	7.9	8.1	---	---	---	10.2	9.9	10.0
22	9.3	8.7	9.0	---	---	---	---	---	---	10.1	9.8	9.9
23	8.9	8.5	8.7	---	---	---	---	---	---	10.3	9.8	10.0
24	8.9	8.1	8.2	---	---	---	---	---	---	10.6	10.0	10.3
25	8.3	7.4	7.8	---	---	---	---	---	---	10.8	10.1	10.5
26	8.2	7.2	7.7	---	---	---	---	---	---	10.9	10.4	10.7
27	8.6	7.9	8.2	10.4	10.0	10.2	---	---	---	11.3	10.3	10.9
28	8.6	8.2	8.4	10.0	9.1	9.6	---	---	---	11.6	11.3	11.5
29	8.6	8.3	8.4	9.2	9.0	9.1	---	---	---	11.5	11.3	11.4
30	8.8	8.4	8.6	9.2	9.0	9.1	---	---	---	11.6	11.2	11.4
31	9.1	8.7	8.9	---	---	---	---	---	---	11.3	11.1	11.2
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	11.4	11.0	11.2	11.5	11.1	11.3	11.5	11.3	11.4	---	---	---
2	11.8	11.2	11.5	11.5	11.2	11.3	11.4	11.2	11.4	12.0	11.6	11.8
3	11.8	11.7	11.8	11.5	11.2	11.3	11.4	11.2	11.3	12.1	11.7	11.9
4	11.9	11.5	11.7	---	---	---	11.4	11.2	11.3	12.0	11.6	11.8
5	11.8	11.4	11.6	---	---	---	11.3	11.1	11.2	12.2	11.7	12.0
6	11.7	11.2	11.5	11.6	11.3	11.4	11.3	11.1	11.2	12.3	12.1	12.1
7	11.3	11.0	11.2	11.5	11.2	11.4	11.4	11.1	11.2	12.4	11.8	12.0
8	11.1	10.9	11.0	11.5	11.2	11.3	11.5	11.3	11.4	12.3	11.9	12.1
9	11.1	11.0	11.0	11.6	11.2	11.4	11.4	11.2	11.3	12.0	11.7	11.9
10	11.0	10.9	11.0	---	---	---	11.3	---	---	12.0	11.6	11.8
11	11.2	11.0	11.1	---	---	---	---	---	---	11.8	11.5	11.7
12	11.2	10.8	11.0	12.0	---	---	---	---	---	11.8	11.5	11.6
13	11.3	10.8	11.0	13.1	12.0	12.6	---	---	---	11.7	11.3	11.5
14	11.4	11.1	11.2	12.8	12.4	12.7	---	---	---	11.6	11.2	11.4
15	11.3	11.1	11.2	12.5	12.3	12.4	---	---	---	11.5	11.1	11.3
16	11.5	11.3	11.4	12.4	12.1	12.2	---	---	---	11.4	11.1	11.3
17	11.5	10.9	11.2	12.1	11.9	12.1	---	---	---	11.4	11.0	11.2
18	11.2	10.9	11.0	12.1	11.7	11.9	---	---	---	11.4	10.9	11.2
19	11.3	11.1	11.2	11.8	11.6	11.7	---	---	---	11.4	10.9	11.2
20	11.4	11.1	11.2	11.7	11.2	11.5	---	---	---	11.3	10.8	11.1
21	11.4	11.1	11.2	11.4	11.2	11.3	---	---	---	11.3	10.8	11.0
22	11.5	11.1	11.3	11.5	11.4	11.4	---	---	---	11.3	10.8	11.0
23	11.3	11.0	11.2	11.5	11.4	11.5	---	---	---	11.2	10.8	11.0
24	11.3	11.0	11.2	11.6	11.4	11.5	---	---	---	11.1	10.7	10.8
25	11.4	11.1	11.2	11.6	11.4	11.5	---	---	---	11.0	10.7	10.9
26	11.5	11.2	11.3	11.6	11.4	11.5	---	---	---	11.0	10.7	10.9
27	11.5	11.3	11.4	11.6	11.4	11.5	---	---	---	11.1	10.5	10.8
28	11.5	11.2	11.4	11.6	11.4	11.5	---	---	---	11.0	10.6	10.8
29	---	---	---	11.6	11.4	11.5	---	---	---	10.8	10.5	10.6
30	---	---	---	11.5	11.4	11.5	---	---	---	10.7	10.3	10.5
31	---	---	---	11.5	11.3	11.4	---	---	---	11.0	10.7	10.9
MONTH	11.9	10.8	11.3	---	---	---	---	---	---	---	---	---

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.1	10.7	10.9	10.5	9.9	10.2	10.3	9.7	10.0	---	---	---
2	10.9	10.5	10.7	10.4	10.0	10.2	10.2	9.7	10.0	---	---	---
3	10.8	10.6	10.7	10.3	9.9	10.1	10.1	9.7	9.9	---	---	---
4	10.7	10.3	10.6	10.3	9.6	10.0	10.1	9.6	9.8	---	---	---
5	10.9	10.5	10.7	10.4	9.7	10.1	10.1	9.5	9.8	---	---	---
6	10.7	10.3	10.5	10.7	9.7	10.2	10.0	9.4	9.7	---	---	---
7	10.6	10.3	10.5	10.7	10.3	10.5	9.9	9.3	9.6	---	---	---
8	10.6	10.3	10.5	10.6	10.1	10.5	9.9	9.3	9.6	---	---	---
9	10.6	10.2	10.4	10.6	10.1	10.4	9.9	9.3	9.6	---	---	---
10	10.8	10.2	10.4	10.6	10.0	10.4	10.3	9.5	9.8	9.7	8.7	9.2
11	10.5	10.1	10.3	10.5	10.0	10.3	10.3	9.6	10.0	9.5	8.5	9.1
12	10.4	10.1	10.3	10.5	10.1	10.4	10.4	9.6	10.0	9.3	8.5	8.8
13	10.3	10.0	10.2	10.5	10.1	10.3	10.4	9.7	10.0	9.3	8.4	8.8
14	10.2	10.0	10.1	10.5	10.1	10.3	10.5	9.7	10.0	9.0	8.2	8.6
15	10.3	9.9	10.1	10.6	10.0	10.3	10.6	9.7	10.1	8.9	8.2	8.5
16	10.3	10.1	10.2	10.6	10.0	10.3	10.6	9.8	10.1	8.8	8.1	8.5
17	10.4	10.0	10.2	10.3	10.0	10.2	10.7	9.8	10.2	8.7	8.2	8.4
18	10.3	9.8	10.1	10.3	10.0	10.2	10.7	9.7	10.2	8.7	8.1	8.4
19	10.3	9.8	10.0	10.5	10.0	10.2	10.9	9.7	10.1	8.7	8.1	8.4
20	10.1	9.5	9.9	10.3	9.9	10.1	10.7	9.6	10.1	8.8	8.2	8.4
21	10.3	10.0	10.2	10.3	10.0	10.1	10.8	9.6	10.1	8.7	8.1	8.4
22	10.3	9.9	10.1	10.5	10.0	10.3	10.8	9.6	10.1	8.7	8.1	8.4
23	10.2	9.9	10.1	10.5	10.1	10.2	10.7	9.5	10.0	8.7	8.1	8.4
24	10.1	9.8	10.0	10.4	10.0	10.2	10.6	9.3	9.9	8.7	8.2	8.5
25	10.1	9.8	9.9	10.6	10.0	10.3	10.3	9.2	9.7	8.9	8.4	8.6
26	10.5	9.8	10.0	10.4	10.1	10.2	10.7	9.2	9.9	9.1	8.3	8.7
27	10.1	9.8	10.0	10.4	10.0	10.2	11.0	9.1	9.8	9.2	8.6	8.9
28	10.1	9.8	9.9	10.4	9.9	10.1	10.6	---	---	9.2	8.7	9.0
29	10.1	9.6	9.9	10.3	9.8	10.1	---	---	---	9.2	8.7	9.0
30	10.4	9.7	10.1	10.3	9.8	10.1	---	---	---	9.7	8.8	9.3
31	---	---	---	10.2	9.7	10.0	---	---	---	---	---	---
MONTH	11.1	9.5	10.3	10.7	9.6	10.2	---	---	---	---	---	---

14362250 STAR GULCH NEAR RUCH, OR

LOCATION.--Lat 42°09'15", long 123°04'27", in NE 1/4 NE 1/4 sec.29, T.39 S., R.3 W., Jackson County ydrologic Unit 17100309, Bureau of Land Management land, on left bank 1.0 mi downstream from Benson Gulch, .0 mi southwest of Ruch, and at mile 1.1.

DRAINAGE AREA.--16.0 mi².

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,667.04 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 153 ft³/s Dec. 14, 1983, Nov. 28, 1985, gage height, 3.11 ft; no flow July 16, Aug. 10-15, Aug. 20 to Sept. 3, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 2	0400	*91	*2.74	No other peak greater than base discharge.			

No flow part or all of many days during July through September.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.99	1.7	8.1	8.0	3.2	2.6	.92	.66	.07	.17	.00
2	.47	.78	1.4	9.0	61	3.1	2.5	1.0	.57	.06	.14	.00
3	.46	.70	1.3	18	23	3.6	3.4	1.0	.49	.06	.10	.01
4	.45	.66	1.2	11	13	3.8	2.8	.88	.41	.07	.06	.03
5	.45	.61	1.4	6.4	8.5	4.1	2.5	.82	.39	.12	.04	.03
6	.44	.60	1.4	4.3	6.3	4.0	2.2	.72	.41	.14	.03	.03
7	.40	.74	1.4	3.2	5.0	3.7	2.1	.66	.43	.11	.03	.04
8	.37	.81	1.3	2.6	4.2	3.6	1.9	.76	.52	.09	.02	.10
9	.41	.76	1.2	2.1	3.6	3.5	1.7	.67	.51	.08	.01	.09
10	.43	.69	1.0	1.8	3.2	3.2	1.6	.59	.48	.07	.00	.07
11	.47	.65	.99	1.6	2.8	3.2	1.6	.64	.40	.07	.00	.07
12	.45	.62	.97	1.6	2.7	4.6	1.4	.59	.34	.06	.00	.07
13	.45	.62	.97	1.4	6.6	6.9	1.4	.57	.29	.04	.00	.07
14	.50	.64	.93	1.4	13	7.5	1.3	.59	.28	.03	.00	.10
15	.56	.69	.89	1.3	18	7.4	1.1	.53	.33	.01	.01	.11
16	.58	.64	.85	1.2	8	7.0	1.1	.56	.45	.01	.02	.12
17	1.3	.62	.84	1.1	13	6.6	1.1	.58	.48	.08	.02	.12
18	1.2	.63	.84	1.1	9.4	6.9	1.1	.63	.42	.26	.02	.10
19	.83	.76	.84	1.1	7.6	7.1	1.0	.68	.34	.46	.01	.10
20	.71	.79	.80	1.1	6.3	6.8	.99	.67	.30	.32	.01	.08
21	.68	2.1	.81	1.1	5.9	6.4	.98	.65	.31	.38	.00	.07
22	.67	4.5	2.3	1.0	5.2	5.6	1.1	.61	.30	1.1	.00	.06
23	.62	2.6	3.5	1.0	5.0	5.2	1.1	.59	.27	.57	.00	.06
24	.62	1.4	2.6	5.5	4.7	4.6	.98	.64	.22	.46	.00	.05
25	.62	1.4	1.9	7.8	4.3	4.2	.96	.72	.18	.41	.00	.05
26	.63	1.3	1.6	8.8	3.9	3.9	.94	.75	.15	.31	.00	.06
27	.87	1.4	1.4	8.2	3.6	3.5	.84	.70	.12	.26	.00	.09
28	.90	2.1	1.3	13	3.3	3.4	.86	.64	.10	.24	.00	.11
29	1.8	2.9	1.4	8.8	---	3.2	.88	.60	.08	.22	.00	.11
30	3.8	2.2	1.4	6.3	---	3.0	.85	.58	.07	.21	.00	.10
31	1.6	---	1.7	4.7	---	2.8	---	.73	---	.20	.00	---
TOTAL	24.20	35.90	42.13	145.6	269.1	145.6	44.90	21.27	10.30	6.57	0.69	2.10
MEAN	.78	1.20	1.36	4.70	9.61	4.70	1.50	.69	.34	.21	.022	.070
MAX	3.8	4.5	3.5	18	61	7.5	3.4	1.0	.66	1.1	.17	.12
MIN	.37	.60	.80	1.0	2.7	2.8	.84	.53	.07	.01	.00	.00
AC-FT	48	71	84	289	534	289	89	42	20	13	1.4	4.2

CAL YR 1986 TOTAL 1114.50 MEAN 3.05 MAX 76 MIN .03 AC-FT 2210
WTR YR 1987 TOTAL 748.36 MEAN 2.05 MAX 61 MIN .00 AC-FT 1480

14366000 APPLEGATE RIVER NEAR APPLEGATE, OR

LOCATION.--Lat 42°14'30", long 123°08'20", in NE 1/4 sec.26, T.38 S., R.4 W., Jackson County, Hydrologic Unit 17100309, on left bank 0.9 mi downstream from Keeler Creek, 1.8 mi southeast of Applegate, and at mile 26.7.

DRAINAGE AREA.--483 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

RECORDS.--WSP 1738: Drainage area. WSP 1935: 1953(M). WDR OR-76-1: 1956(M), 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 1,285.33 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 23, 1938, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since December 1980 by Applegate Lake (station 14361900). Many diversions for irrigation upstream from station. McDonald Creek Canal diverts from McDonald Creek upstream from station for irrigation in Bear Creek basin. Thompson Creek Irrigation Association ditch diverts upstream from station for irrigation in Thompson Creek basin. Fowler-Keeler and Berryman ditches divert upstream from station for irrigation downstream.

AVERAGE DISCHARGE.--49 years, 556 ft³/s, 402,800 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,200 ft³/s Jan. 15, 1974, gage height, 20.41 ft, from rating curve extended above 18,000 ft³/s on basis of slope-area measurements of flow at gage heights 18.00 ft and 19.57 ft; minimum discharge, 4.6 ft³/s Sept. 22-25, 1979. Minimum since first filling of Applegate Lake, 104 ft³/s Aug. 9, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 20, 1927, reached a stage of 18.7 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,260 ft³/s Feb. 2, gage height, 4.80 ft; minimum discharge, 104 ft³/s Aug. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360	280	187	253	632	189	246	613	317	239	151	139
2	336	276	217	281	1540	188	268	574	307	158	139	136
3	365	277	216	341	1800	196	282	501	306	151	135	135
4	369	322	215	312	1200	263	255	461	304	153	133	133
5	353	320	220	274	930	353	250	561	304	158	133	133
6	352	319	219	254	725	347	251	717	302	158	125	136
7	340	322	216	242	392	302	264	720	306	159	122	136
8	317	321	212	233	310	285	262	740	310	158	120	137
9	351	319	210	233	303	275	270	632	307	160	116	138
10	331	321	208	229	299	265	270	536	302	160	121	140
11	278	319	206	226	281	262	268	457	297	158	125	137
12	277	315	205	224	183	359	263	469	299	156	128	137
13	275	313	205	222	333	775	253	466	295	152	136	138
14	274	314	207	219	784	1420	238	402	295	148	136	142
15	272	314	205	217	789	1290	238	395	296	147	140	141
16	273	311	203	206	778	1110	241	392	297	153	140	141
17	281	309	203	209	631	1000	250	341	298	155	140	138
18	280	310	200	214	354	955	256	309	296	182	137	138
19	276	309	200	211	336	716	246	277	297	181	139	137
20	276	298	200	210	296	529	242	306	282	167	139	144
21	275	263	200	210	213	429	242	321	275	172	136	140
22	274	286	216	199	205	419	246	334	279	199	136	142
23	273	357	222	134	201	375	253	338	278	189	135	141
24	273	366	214	162	196	293	232	368	276	184	133	140
25	273	394	210	179	192	266	227	387	272	180	131	141
26	274	386	207	296	197	252	223	366	267	179	131	141
27	279	384	205	733	194	249	253	345	268	177	131	141
28	273	342	205	975	191	245	352	369	269	173	137	142
29	283	220	206	929	---	243	469	362	268	168	139	135
30	321	187	205	776	---	241	687	362	271	164	135	227
31	293	---	206	582	---	241	---	357	---	158	139	---
TOTAL	9327	9374	6450	9985	14485	14332	8297	13778	8740	5196	4138	4246
MEAN	301	312	208	322	517	462	277	444	291	168	133	142
MAX	369	394	222	975	1800	1420	687	740	317	239	151	227
MIN	272	187	187	134	183	196	223	277	267	147	116	133
AC-FT	18500	18590	12790	19810	28730	28430	16460	27330	17340	10310	8210	8420

CAL YR 1986 TOTAL 165755 MEAN 454 MAX 5740 MIN 123 AC-FT 328800
WTR YR 1987 TOTAL 108348 MEAN 297 MAX 1800 MIN 116 AC-FT 214900

14366000 APPLEGATE RIVER NEAR APPLEGATE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: August 1973 to current year.

INSTRUMENTATION.--Temperature recorder since August 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 28.0°C July 29, 30, Aug. 3, 4, 1974; minimum, 0.0°C on several days 1975-80. Maximum since full operation of Applegate Lake, 25.5°C July 5, 1984; minimum, 0.5°C Jan. 27, 30, 1985.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.0°C July 13, 14, Aug. 8, 9; minimum, 1.0°C Jan. 16, 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	11.0	12.0	12.0	9.5	10.5	6.5	5.5	5.5	6.0	5.0	5.5
2	13.0	9.5	11.5	11.5	8.5	10.0	6.5	5.5	6.0	5.0	4.0	4.5
3	12.5	8.5	10.5	11.5	8.5	10.0	6.5	5.5	6.0	6.0	5.0	5.5
4	12.5	8.5	10.5	11.5	9.0	10.0	7.0	5.5	6.5	5.5	4.5	5.0
5	12.0	8.0	10.0	10.5	9.0	10.0	8.0	6.5	7.0	5.5	4.5	5.0
6	11.5	7.5	9.5	10.5	8.5	9.5	8.0	6.5	7.5	5.0	3.5	4.0
7	11.5	7.5	9.5	10.5	9.5	10.0	7.0	6.0	6.5	4.0	2.5	3.0
8	11.5	7.5	9.5	11.5	9.0	10.0	6.5	5.5	6.0	3.5	2.0	3.0
9	11.0	7.5	9.5	12.0	10.0	11.0	5.5	4.5	5.0	5.0	3.0	4.0
10	11.0	7.5	9.5	11.5	10.0	10.5	5.5	4.5	5.0	5.0	3.0	3.5
11	11.0	8.0	9.5	10.5	8.5	9.5	5.0	4.0	4.5	4.5	2.5	3.5
12	10.5	6.5	8.5	10.5	8.5	9.5	5.5	4.5	5.0	4.5	3.5	4.0
13	10.5	6.5	8.5	10.0	8.5	9.5	6.5	5.5	5.5	5.5	3.5	4.5
14	11.0	7.0	9.0	10.0	9.0	9.5	6.0	4.5	5.0	4.5	3.5	4.0
15	11.0	7.5	9.0	10.0	9.5	9.5	5.5	4.0	4.5	3.5	1.5	2.5
16	10.0	7.5	9.0	10.5	9.5	10.0	5.5	4.5	5.0	3.0	1.0	1.5
17	11.0	9.0	10.0	10.5	8.5	9.5	5.0	4.5	4.5	3.5	1.0	2.0
18	12.0	9.0	10.0	10.0	8.0	9.0	5.5	4.5	5.0	4.0	2.0	2.5
19	11.5	8.0	9.5	10.5	8.5	9.5	6.0	5.0	5.0	3.5	1.5	2.5
20	11.5	8.5	10.0	10.5	8.5	9.5	5.5	4.5	5.0	4.0	1.5	2.5
21	12.0	9.0	10.5	10.5	9.0	9.5	5.5	4.0	4.5	4.0	2.0	3.0
22	12.5	9.5	11.0	9.5	9.0	9.5	6.5	4.5	5.5	4.0	3.0	3.5
23	11.5	9.5	10.5	10.0	8.0	9.0	6.0	5.0	5.5	5.5	3.5	4.5
24	12.5	9.5	11.0	9.0	7.5	8.5	6.0	5.0	5.5	5.5	4.5	5.0
25	14.0	11.0	12.0	8.5	7.5	8.0	5.5	5.0	5.5	6.5	5.0	6.0
26	14.0	11.5	13.0	8.5	7.5	8.0	6.5	5.0	5.5	7.0	5.0	6.0
27	13.5	12.5	13.0	9.0	8.0	8.5	5.0	3.5	4.5	9.5	4.0	5.0
28	12.5	11.0	11.5	8.5	7.5	8.0	4.5	3.0	4.0	5.5	4.0	4.5
29	11.5	10.5	11.0	8.5	7.0	7.5	6.0	4.5	5.0	5.5	---	---
30	12.5	11.0	11.5	7.0	5.5	6.0	4.5	3.0	4.0	---	---	---
31	13.0	10.5	11.5	---	---	---	5.5	4.0	5.0	---	---	---
MONTH	14.0	6.5	10.5	12.0	5.5	9.5	8.0	3.0	5.5	---	---	---

14366000 APPLEGATE RIVER NEAR APPLEGATE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.0	4.5	6.0	12.5	7.5	10.0	11.0	9.0	10.0
2	---	---	---	8.5	6.0	7.0	11.0	7.5	9.5	10.5	8.5	9.5
3	---	---	---	---	---	---	11.5	8.0	9.5	14.5	9.5	11.5
4	---	---	---	---	---	---	12.5	8.0	10.0	15.5	9.0	12.0
5	---	---	---	9.0	6.5	8.0	12.0	7.5	9.5	15.5	9.5	12.5
6	---	---	---	---	---	---	9.5	7.5	8.5	15.5	9.5	12.5
7	---	---	---	8.0	4.5	6.5	12.0	7.5	10.0	14.5	10.0	12.0
8	---	---	---	8.5	6.0	7.0	13.0	9.0	11.0	14.5	10.0	12.0
9	6.5	---	---	9.0	6.0	7.5	12.5	7.5	10.0	15.5	10.0	12.5
10	7.0	5.0	6.0	8.0	5.5	6.5	10.5	8.5	9.5	15.5	9.5	12.5
11	8.0	5.5	6.5	7.5	5.5	6.5	11.5	7.0	9.0	16.0	10.0	13.0
12	6.0	5.0	5.5	---	---	---	12.0	6.5	9.5	15.5	10.5	13.0
13	6.5	5.5	6.0	---	---	---	12.5	7.0	10.0	16.0	10.0	13.0
14	6.0	4.5	5.0	---	---	---	14.0	8.5	11.0	16.0	11.0	13.5
15	6.5	5.0	5.5	---	---	---	14.0	8.5	11.5	17.0	11.5	14.0
16	---	---	---	---	---	---	14.5	9.0	11.5	15.5	11.0	13.0
17	7.5	---	---	---	---	---	11.5	9.5	10.5	15.0	9.5	12.5
18	8.0	5.5	6.5	7.0	---	---	10.5	7.5	9.0	15.5	10.0	13.0
19	7.0	3.5	5.5	8.0	5.0	6.0	12.0	6.5	9.0	15.0	9.5	12.5
20	7.0	3.5	5.5	7.0	4.5	5.5	13.5	7.5	10.5	15.5	9.0	12.0
21	6.5	5.5	6.0	8.0	5.0	6.5	15.0	9.5	12.0	16.0	9.5	13.0
22	7.0	4.5	5.5	8.5	4.5	6.5	15.5	11.0	13.0	16.0	10.0	13.5
23	6.0	4.5	5.5	9.0	6.0	7.5	15.5	11.0	13.0	15.5	10.5	13.5
24	7.0	4.0	5.5	10.5	6.0	8.0	15.0	10.0	12.5	15.0	11.0	12.5
25	7.0	3.0	---	9.5	5.0	7.5	15.5	10.0	12.5	12.5	11.0	11.5
26	---	---	---	11.0	7.0	8.5	16.5	11.0	13.5	14.0	10.5	12.0
27	8.5	5.0	6.5	10.0	5.0	7.5	17.0	12.0	14.0	15.0	10.5	12.5
28	8.0	4.5	6.0	10.0	5.0	7.5	14.0	11.0	12.5	16.0	10.5	13.5
29	---	---	---	11.0	5.5	8.0	13.0	9.0	11.0	16.5	11.5	14.0
30	---	---	---	11.5	6.0	9.0	12.0	8.5	10.0	14.0	12.0	13.0
31	---	---	---	12.0	7.5	9.5	---	---	---	15.5	12.0	13.5
MONTH	---	---	---	---	---	---	17.0	6.5	11.0	17.0	8.5	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	10.5	13.5	19.0	14.0	17.0	20.0	15.0	17.0	17.5	15.5	17.0
2	18.5	11.0	15.0	21.5	15.5	18.0	21.0	15.5	18.0	17.0	14.5	16.0
3	19.0	12.5	16.0	21.0	16.0	18.5	21.5	16.0	18.5	16.5	14.0	15.0
4	19.0	13.5	16.5	20.0	15.5	17.5	21.5	17.0	19.0	16.5	13.0	15.0
5	18.5	13.0	16.0	20.0	14.5	17.0	21.0	16.0	18.5	16.5	13.0	14.5
6	19.5	12.5	16.0	20.0	15.5	17.5	20.0	15.5	17.5	16.5	13.5	14.5
7	17.0	13.5	15.5	20.5	16.0	18.0	21.0	15.0	18.0	16.0	13.5	14.5
8	19.5	14.0	16.5	20.5	16.0	18.0	22.0	16.0	19.0	15.5	13.5	14.5
9	17.0	13.5	15.5	19.5	15.0	17.0	22.0	17.0	19.5	15.5	13.0	14.0
10	18.5	12.5	15.5	20.5	16.0	18.0	21.0	16.5	18.5	16.0	13.0	14.5
11	19.5	12.5	16.0	21.0	15.5	18.0	20.0	15.5	18.0	16.5	13.0	14.5
12	19.5	13.0	16.5	21.5	16.0	18.5	20.0	15.0	17.5	16.5	13.5	15.0
13	20.5	13.5	17.5	22.0	17.0	19.0	19.5	15.5	17.0	16.5	14.0	15.0
14	18.5	14.5	17.0	22.0	17.0	19.5	19.0	15.0	17.0	16.5	13.5	15.0
15	16.5	13.0	14.0	21.0	17.5	19.0	18.5	14.0	16.5	17.0	14.0	15.0
16	14.5	12.5	13.5	18.5	15.0	16.5	18.5	14.0	16.5	16.0	12.0	14.0
17	18.0	12.5	14.5	15.5	13.0	13.5	19.0	14.0	16.5	16.5	12.5	14.0
18	19.0	12.5	15.5	14.5	13.0	14.0	19.5	14.5	17.0	16.5	13.0	14.5
19	19.5	13.0	16.5	19.0	14.0	16.5	19.5	15.0	17.0	16.0	12.5	14.5
20	17.5	14.0	15.5	18.5	14.0	16.5	19.5	15.5	17.5	16.0	12.5	14.0
21	16.5	14.0	15.0	16.0	14.0	15.0	19.0	15.0	17.0	16.5	12.5	14.5
22	18.5	12.0	15.5	18.5	14.0	16.0	16.5	15.0	16.0	17.0	13.0	15.0
23	19.0	12.5	16.0	18.5	14.5	16.5	18.5	14.0	16.0	16.0	13.5	15.0
24	20.0	13.0	16.5	19.0	15.5	17.0	19.5	15.0	17.0	15.5	13.5	14.5
25	21.0	14.0	17.5	20.0	16.0	17.5	19.0	14.5	17.0	17.0	14.0	15.5
26	21.0	15.0	18.0	19.5	15.0	17.5	19.5	14.5	17.0	17.0	14.0	15.5
27	21.0	15.0	18.0	19.5	14.5	17.0	19.5	15.0	17.5	16.0	12.5	14.5
28	21.0	14.5	18.0	19.5	15.0	17.0	20.0	15.5	17.5	16.5	12.5	14.5
29	21.0	15.5	18.5	19.5	15.0	17.0	20.0	16.0	18.0	16.5	12.5	14.5
30	21.0	15.0	18.0	19.0	15.5	17.0	20.0	16.0	18.0	17.0	13.0	15.0
31	---	---	---	20.0	15.0	17.0	20.0	16.0	18.0	---	---	---
MONTH	21.0	10.5	16.0	22.0	13.0	17.0	22.0	14.0	17.5	17.5	12.0	15.0

14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR

LOCATION.--Lat 42°21'15", long 123°24'20", in SE 1/4 NE 1/4 sec.16, T.37 S., R.6 W., Josephine County, Hydrologic Unit 17100309, on left bank 0.3 mi downstream from Jackson Creek, 3.6 mi southeast of Wilderville, and at mile 7.6.

DRAINAGE AREA.--698 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1955, September 1978 to current year.

REVISED RECORDS.--WSP 1318: 1943. WSP 1738: 1951, 1953, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 947.18 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Sept. 1, 1978, nonrecording gage at site 1,100 ft upstream at datum 2.36 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since December 1980 by Applegate Lake (station 14361900). Many diversions for irrigation upstream from station. Wilderville ditch diverts up to 16 ft^3/s 0.3 mi upstream and at the mouth of Jackson Creek.

AVERAGE DISCHARGE.--26 years, 757 ft^3/s, 548,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,500 ft^3/s Jan. 18, 1953, gage height, 18.3 ft, from floodmark, site and datum then in use, from rating curve extended above 12,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 0.78 ft^3/s Aug. 22-24, 1979. Minimum since first filling of Applegate Lake, 90 ft^3/s Aug. 28, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 20.3 ft, from floodmark, former site and datum, discharge, 66,500 ft^3/s, from rating curve extended above 12,000 ft^3/s on basis of slope-area measurement of peak flow.

Flood of February 1927 reached a stage of 22 ft at former site, from local resident. Floods of Dec. 22, 1964, and Jan. 15, 1974, are known to have exceeded the December 1955 flood.

No flow was observed at present site during the late summer of 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,820 ft^3/s Feb. 2, gage height, 6.57 ft; maximum gage height, 6.80 ft Feb. 2, from crest-stage gage; minimum discharge, 90 ft^3/s Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	407	358	308	937	1810	343	408	587	343	246	140	117
2	376	326	301	959	4210	337	412	570	310	170	130	116
3	387	312	304	1080	3110	346	437	527	308	141	121	112
4	397	323	299	848	1980	385	421	470	296	131	112	112
5	392	336	297	624	1460	453	405	488	291	138	110	114
6	379	336	299	513	1150	553	387	627	286	140	106	116
7	370	344	294	450	809	481	388	629	279	129	102	121
8	340	350	283	408	642	457	391	665	299	132	99	123
9	363	350	273	385	588	463	385	628	295	137	95	125
10	365	350	265	365	552	447	386	550	295	134	94	126
11	319	349	265	350	540	430	386	475	293	133	95	126
12	305	346	263	342	432	584	385	452	288	134	97	126
13	303	346	265	340	734	998	375	472	275	126	98	126
14	299	346	294	332	1440	1710	352	430	271	121	101	129
15	299	346	290	324	1370	1690	338	407	282	110	104	131
16	295	346	279	307	1300	1410	338	411	284	111	109	131
17	309	341	273	299	1120	1280	320	381	293	117	111	132
18	313	336	260	299	763	1350	315	346	293	137	108	140
19	312	336	260	297	674	1130	321	296	286	158	107	140
20	307	343	260	288	622	920	313	315	271	157	112	140
21	302	413	257	285	509	764	304	333	259	144	114	140
22	299	555	294	285	460	712	303	335	254	188	112	144
23	298	553	389	246	443	693	293	327	254	189	112	147
24	298	483	361	1020	416	596	279	355	256	179	108	144
25	294	493	337	1640	391	540	254	370	255	181	100	137
26	292	479	320	1560	375	499	238	381	250	180	97	137
27	305	480	305	1390	369	477	232	340	246	175	97	137
28	308	541	295	1810	350	458	307	360	248	170	94	137
29	331	441	291	1440	---	442	344	363	246	159	100	137
30	483	344	299	1240	---	429	601	359	245	155	105	154
31	428	---	315	931	---	418	---	374	---	147	120	---
TOTAL	10475	11602	9095	21594	28619	21795	10618	13623	8351	4669	3310	3917
MEAN	338	387	293	697	1022	703	354	439	278	151	107	131
MAX	483	555	389	1810	4210	1710	601	665	343	246	140	154
MIN	292	312	257	246	350	337	232	296	245	110	94	112
AC-FT	20780	23010	18040	42830	56770	43230	21060	27020	16560	9260	6570	7770

CAL YR 1986 TOTAL 230142 MEAN 631 MAX 9230 MIN 87 AC-FT 456500
WTR YR 1987 TOTAL 147668 MEAN 405 MAX 4210 MIN 94 AC-FT 292900

14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: September 1978 to current year.

INSTRUMENTATION.--Temperature recorder since September 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 28.0°C July 20, 1979; minimum recorded, 0.5°C Dec. 30, 31, 1978, Jan. 29, 30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 27.0°C July 13, 14; minimum, 1.5°C Jan. 16, 17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.5	14.0	14.5	11.5	10.5	11.0	7.0	6.5	6.5	7.0	6.5	7.0
2	15.0	12.0	13.5	11.0	9.5	10.5	6.5	6.5	6.5	6.5	6.0	6.0
3	15.0	12.0	13.5	11.0	9.5	10.0	6.5	6.5	6.5	7.0	6.5	6.5
4	15.0	12.0	13.5	11.0	9.0	10.0	7.0	6.5	7.0	6.5	6.0	6.0
5	15.5	12.5	14.0	10.5	9.5	10.0	8.0	7.0	7.5	6.5	6.0	6.0
6	15.0	12.5	14.0	10.5	8.5	9.5	8.5	8.0	8.0	6.0	5.0	5.5
7	---	12.0	---	10.5	9.5	10.0	8.0	7.0	7.5	5.0	4.5	4.5
8	---	---	---	11.0	9.0	10.0	7.0	6.5	6.5	4.5	3.5	4.0
9	13.5	---	---	11.5	10.0	11.0	6.5	6.0	6.5	5.0	4.0	4.5
10	13.0	10.5	12.0	11.5	10.5	11.0	6.0	5.5	5.5	5.0	4.0	4.5
11	13.0	10.5	12.0	10.5	9.0	9.5	5.5	5.0	5.5	5.0	4.0	4.5
12	12.5	10.0	11.5	9.5	9.0	9.0	6.0	5.5	6.0	5.5	4.0	5.0
13	12.0	9.5	11.0	9.5	9.0	9.5	7.0	6.0	6.5	5.5	5.0	5.0
14	12.0	9.5	11.0	10.0	9.0	9.5	7.0	6.0	6.5	5.5	4.5	5.0
15	12.5	10.0	11.5	10.5	9.5	10.0	6.0	5.5	6.0	4.5	3.0	4.0
16	12.0	10.0	11.0	10.5	9.0	10.0	6.0	5.5	6.0	3.5	1.5	2.5
17	12.5	10.5	11.5	10.5	9.0	10.0	6.0	5.5	6.0	3.0	1.5	2.5
18	12.5	11.0	12.0	9.5	8.5	9.5	6.0	5.5	6.0	4.0	2.0	3.0
19	12.0	10.5	11.5	10.0	9.0	9.5	6.5	5.0	6.0	3.5	2.5	3.0
20	12.0	10.5	11.0	10.0	9.5	10.0	6.5	6.0	6.5	3.5	2.0	3.0
21	12.0	10.5	11.0	10.5	9.5	10.0	6.5	5.5	6.0	4.0	2.5	3.0
22	12.0	10.5	11.5	10.0	9.5	9.5	7.0	5.5	6.0	4.5	3.5	4.0
23	12.0	10.5	11.0	10.0	9.0	9.5	7.0	6.0	6.5	5.5	4.5	5.0
24	12.5	11.0	11.5	9.0	8.0	8.5	7.0	6.5	6.5	6.0	5.0	5.5
25	13.5	11.0	12.5	8.5	8.0	8.0	6.5	6.0	6.5	7.5	6.0	6.5
26	13.5	12.5	13.0	8.5	7.5	8.0	7.5	6.5	7.0	8.5	7.0	7.5
27	13.5	12.5	13.0	9.5	8.5	9.0	7.0	6.0	6.5	7.0	6.5	7.0
28	13.0	11.5	12.0	9.0	8.0	8.5	6.0	5.0	5.0	6.5	5.5	6.0
29	11.5	11.0	11.5	8.5	7.5	8.0	7.0	5.5	6.0	6.5	5.5	6.0
30	12.0	10.5	11.5	8.0	7.0	7.0	6.0	5.0	5.5	6.5	5.5	6.0
31	12.0	10.5	11.5	---	---	---	6.5	5.5	6.0	7.0	6.0	6.5
MONTH	---	---	---	11.5	7.0	9.5	8.5	5.0	6.5	8.5	1.5	5.0

14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	6.0	6.5	8.5	6.5	7.5	14.0	9.5	12.0	13.0	11.0	12.0
2	7.5	6.0	7.0	9.0	7.0	8.0	13.5	10.0	12.0	11.5	10.0	11.0
3	7.0	6.0	6.5	9.5	8.5	9.0	13.0	10.0	11.5	16.5	10.5	13.0
4	6.5	5.5	6.0	9.5	8.0	9.0	14.0	10.0	12.0	17.0	13.0	15.0
5	7.0	5.5	6.5	9.5	8.5	9.0	12.5	10.0	11.5	18.0	13.0	15.5
6	7.0	5.5	6.0	9.5	7.5	8.5	11.5	9.0	10.5	17.5	14.0	15.5
7	7.0	5.5	6.5	8.5	6.0	7.5	13.5	10.0	12.0	17.0	14.0	15.5
8	8.0	6.5	7.0	9.5	7.5	8.5	15.0	11.0	13.0	17.0	13.0	15.0
9	7.5	6.5	7.0	9.5	7.5	8.5	14.0	10.0	12.5	17.5	13.5	15.5
10	8.5	7.0	7.5	9.0	7.5	8.5	12.5	10.0	11.5	18.0	13.5	15.5
11	9.0	7.0	8.0	8.5	7.5	8.0	12.0	8.5	10.5	18.0	13.5	16.0
12	8.0	6.5	7.0	9.0	8.0	8.5	13.5	8.5	11.0	18.0	14.5	16.5
13	7.5	7.0	7.0	9.5	7.5	8.5	14.0	9.0	12.0	18.5	14.0	16.5
14	7.0	6.0	6.5	8.0	7.0	7.5	15.5	10.5	13.0	18.5	15.0	16.5
15	8.0	6.5	7.0	8.5	6.5	7.5	16.0	11.0	14.0	19.0	15.5	17.0
16	7.0	6.0	6.5	9.5	7.0	8.0	16.0	11.5	14.0	18.0	14.5	16.5
17	8.5	6.5	7.0	8.5	7.0	7.5	15.0	12.5	13.5	17.0	13.0	15.0
18	8.5	7.0	7.5	8.0	6.5	7.0	12.5	10.0	11.5	17.0	12.5	15.0
19	7.5	5.5	6.5	8.5	6.0	7.5	13.5	8.5	11.0	17.0	12.0	14.5
20	7.5	5.5	6.5	7.5	6.0	7.0	15.0	9.5	12.5	17.5	12.0	15.0
21	7.5	6.5	7.0	9.5	6.0	7.5	16.5	11.5	14.5	17.5	12.5	15.5
22	7.5	5.5	6.5	9.0	6.5	7.5	17.5	13.0	15.5	16.5	13.5	15.0
23	7.0	6.0	6.5	10.0	7.5	8.5	17.0	13.0	15.5	18.0	13.5	15.5
24	7.5	5.5	6.5	11.0	7.0	9.0	17.0	12.5	15.0	16.0	14.0	15.0
25	7.0	4.5	6.0	10.5	7.0	9.0	17.0	12.5	15.0	15.0	13.5	13.5
26	7.5	4.5	6.0	11.5	8.0	9.5	18.5	14.0	16.0	16.0	12.0	14.0
27	8.5	6.0	7.5	11.0	7.0	9.0	19.5	15.0	17.5	15.0	13.0	14.0
28	9.0	6.0	7.5	11.0	6.5	9.0	18.0	15.5	17.0	17.0	12.5	15.0
29	---	---	---	12.0	7.0	9.5	16.0	12.5	14.5	17.5	14.0	16.0
30	---	---	---	12.5	8.0	10.5	14.5	12.0	13.0	16.0	14.0	15.0
31	---	---	---	13.0	9.0	11.5	---	---	---	17.0	13.0	14.5
MONTH	9.0	4.5	7.0	13.0	6.0	8.5	19.5	8.5	13.0	19.0	10.0	15.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	12.5	15.5	23.0	19.0	21.5	22.5	18.0	20.0	22.5	19.5	21.0
2	20.0	14.0	17.0	24.0	18.5	21.0	24.0	18.0	20.5	22.0	18.0	20.0
3	22.0	16.0	19.0	24.0	19.0	21.5	25.5	19.0	22.0	20.5	18.0	19.0
4	22.0	17.0	19.5	22.0	18.5	20.0	26.0	20.5	23.0	20.0	16.0	18.0
5	21.0	16.0	18.5	22.5	17.5	19.5	25.0	20.0	22.5	20.0	16.0	17.5
6	21.5	16.0	19.0	23.0	18.0	20.5	24.5	19.5	21.5	19.5	16.0	17.5
7	20.0	17.0	18.5	23.5	18.5	21.0	25.0	19.0	21.5	19.0	16.5	17.5
8	21.5	16.5	19.0	24.0	19.5	21.0	26.0	20.0	23.0	18.5	16.5	17.5
9	20.0	17.0	18.5	23.0	18.5	20.5	26.0	20.5	23.5	18.5	15.5	17.0
10	20.5	15.0	18.0	23.5	19.5	21.0	25.5	20.0	22.5	18.5	15.5	17.0
11	21.5	16.0	18.5	24.5	19.0	21.5	24.5	19.0	22.0	19.0	15.5	17.0
12	22.5	16.5	19.5	25.5	20.0	22.5	24.0	19.0	21.5	19.5	16.5	17.5
13	23.5	17.5	20.5	27.0	21.0	23.5	24.0	19.5	21.5	20.0	17.0	18.0
14	22.0	19.0	20.5	27.0	21.0	24.0	22.5	19.0	20.5	19.0	16.0	17.5
15	20.0	15.0	16.5	26.0	21.5	23.5	22.5	18.0	20.0	19.0	16.0	17.5
16	15.0	13.5	14.5	22.0	19.0	20.0	23.0	18.0	20.0	18.5	14.5	16.0
17	18.5	13.5	16.0	19.0	15.5	17.0	23.0	17.5	20.0	18.5	14.5	16.0
18	20.5	15.0	17.5	15.5	14.5	15.0	23.5	18.0	20.5	19.0	14.5	16.5
19	21.5	16.0	19.0	20.5	14.5	17.0	23.5	18.5	21.0	18.5	15.0	16.5
20	20.0	17.0	18.5	21.5	17.0	19.0	23.5	18.5	21.0	17.5	14.5	16.0
21	18.5	16.0	17.5	19.0	16.5	17.5	23.5	18.5	20.5	18.0	14.5	16.0
22	20.0	14.5	17.5	20.5	16.0	18.0	21.0	18.0	19.5	19.0	14.5	16.5
23	21.0	16.0	18.5	21.0	17.0	19.0	21.5	17.0	19.5	18.5	15.5	17.0
24	22.5	16.5	19.5	22.0	18.0	20.0	23.0	17.5	20.5	17.5	15.5	16.5
25	23.5	18.0	20.5	22.0	18.5	20.0	23.5	18.5	20.5	19.0	15.5	16.5
26	24.0	19.5	22.0	22.0	18.0	20.0	23.5	18.5	21.0	19.0	16.0	17.0
27	24.5	19.5	22.0	22.0	18.0	20.0	24.0	18.5	21.5	18.0	14.5	16.0
28	24.5	19.5	22.0	22.5	18.5	20.0	24.5	19.0	21.5	18.5	14.5	16.0
29	25.0	20.0	22.5	22.5	18.0	20.0	24.5	19.5	22.0	18.0	14.5	16.0
30	24.0	19.5	22.0	22.0	18.5	20.0	24.5	19.5	22.0	18.0	14.5	16.0
31	---	---	---	22.5	17.5	20.0	24.5	20.0	22.0	---	---	---
MONTH	25.0	12.5	19.0	27.0	14.5	20.0	26.0	17.0	21.0	22.5	14.5	17.0

14370400 ROGUE RIVER NEAR MERLIN, OR

LOCATION.--Lat 42°29'50", long 123°29'15", in SE 1/4 sec.26, T.35 S., R.7 W., Josephine County, Hydrologic Unit 17100310, on left bank at Robertson Bridge, 3.4 mi upstream from Jumpoff Joe Creek, 3.7 mi southwest of Merlin, and at mile 86.8.

DRAINAGE AREA.--3,271 mi^2.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: February 1974 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder February 1974 to January 1983; water-quality monitor since February 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 25.5°C Aug. 3-5, 1977; minimum, 0.0°C Jan. 9, 1977, Dec. 30, 1978, to Jan. 1, 1979, Jan. 30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 22.0°C June 26, 29, 30, July 14, Aug. 4, 9; minimum, 1.5°C Jan. 17-19, 21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	12.0	13.0	10.5	9.5	10.0	6.0	5.5	6.0	7.0	5.5	6.0
2	13.0	10.5	12.0	9.5	8.5	9.0	6.0	5.5	5.5	6.5	6.0	6.0
3	13.5	10.0	12.0	9.0	8.5	9.0	6.0	5.5	5.5	6.5	6.0	6.0
4	13.5	10.5	12.0	9.0	8.5	8.5	6.0	5.5	6.0	6.5	6.0	6.0
5	14.0	11.0	12.5	9.5	8.0	9.0	7.0	6.0	6.5	6.5	5.5	6.0
6	14.5	11.5	13.0	8.5	7.5	8.0	7.5	7.0	7.0	6.0	5.0	5.5
7	14.5	11.5	13.0	9.0	7.5	8.0	7.5	6.5	7.0	5.0	3.5	4.5
8	14.0	11.0	13.0	8.5	8.0	8.0	6.5	6.0	6.0	3.5	3.0	3.5
9	14.0	11.0	12.5	9.5	8.0	9.0	6.0	5.0	5.5	4.0	3.0	3.5
10	13.5	11.5	12.5	10.0	8.5	9.0	5.5	5.0	5.0	4.0	3.5	3.5
11	13.5	11.5	12.5	9.0	8.0	8.5	5.0	5.0	5.0	4.0	3.5	3.5
12	12.5	10.5	11.5	8.0	7.5	8.0	5.0	4.5	5.0	4.5	3.5	4.0
13	12.0	10.0	11.0	8.0	7.5	8.0	6.0	5.0	5.5	4.5	4.0	4.0
14	12.0	9.5	10.5	8.5	8.0	8.0	6.5	5.5	6.0	5.0	4.0	4.5
15	12.0	9.5	10.5	8.5	8.5	8.5	6.5	6.0	6.0	4.0	3.0	3.5
16	11.5	9.5	10.5	9.0	8.5	8.5	6.0	5.5	5.5	3.0	2.0	2.5
17	11.5	10.0	11.0	9.0	8.5	8.5	5.5	5.0	5.5	2.5	1.5	2.0
18	12.0	10.5	11.0	8.5	8.0	8.5	5.5	5.0	5.5	2.5	1.5	2.0
19	11.5	10.0	10.5	8.5	8.0	8.5	5.5	5.5	5.5	3.0	1.5	2.0
20	11.5	10.5	11.0	9.0	8.0	8.5	6.0	5.5	6.0	3.0	2.0	2.5
21	11.5	10.0	10.5	9.0	8.5	9.0	6.0	5.5	5.5	2.5	1.5	2.0
22	11.5	10.0	10.5	9.0	8.5	8.5	6.0	5.5	6.0	3.0	2.5	3.0
23	11.0	10.0	10.5	9.0	8.5	8.5	6.5	6.0	6.5	4.5	3.0	4.0
24	11.5	10.0	10.5	8.5	8.0	8.5	6.5	6.5	6.5	5.5	4.0	5.0
25	12.0	10.0	11.0	8.0	7.0	7.5	6.5	6.0	6.5	5.5	4.5	5.0
26	12.5	11.0	12.0	7.5	6.5	7.0	6.5	6.0	6.0	6.5	5.5	6.0
27	12.5	11.5	12.0	8.0	7.0	7.5	6.0	6.0	6.0	7.0	6.5	6.5
28	12.0	11.0	11.5	8.0	7.5	8.0	6.0	5.0	5.5	6.5	5.5	6.0
29	11.0	10.5	11.0	7.5	7.0	7.0	5.5	5.0	5.5	6.0	5.5	6.0
30	11.0	10.0	10.5	7.0	6.0	6.5	5.5	5.0	5.5	6.5	6.0	6.0
31	11.0	10.0	10.5	---	---	---	5.5	5.0	5.5	6.5	5.5	6.0
MONTH	14.5	9.5	11.5	10.5	6.0	8.5	7.5	4.5	6.0	7.0	1.5	4.5

14370400 ROGUE RIVER NEAR MERLIN, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	5.5	6.0	7.0	6.5	7.0	12.5	10.0	11.0	13.0	11.0	12.0
2	6.5	5.5	6.0	7.5	6.5	7.0	12.5	10.5	11.5	11.5	10.0	11.0
3	7.0	6.5	6.5	8.5	7.5	8.0	12.0	11.0	11.5	13.5	9.5	11.5
4	6.5	6.0	6.5	8.5	8.0	8.5	12.5	10.5	11.5	16.0	11.5	13.5
5	6.5	6.0	6.0	10.0	8.5	9.0	12.0	10.5	11.0	16.5	12.5	14.5
6	6.5	6.0	6.0	9.5	8.5	9.0	11.0	10.0	10.5	17.0	14.0	15.5
7	6.5	5.5	6.0	8.5	7.5	8.0	12.0	10.0	11.0	17.0	15.0	16.0
8	7.0	6.0	6.5	8.5	7.5	8.0	13.0	11.0	12.0	17.0	14.5	16.0
9	7.0	6.5	7.0	9.0	8.0	8.5	13.5	11.5	12.5	17.5	15.0	16.0
10	8.0	7.0	7.5	8.5	8.0	8.5	13.0	11.0	12.5	18.0	15.0	16.5
11	8.5	7.5	8.0	8.5	7.5	8.0	12.0	10.5	11.5	18.0	15.0	16.5
12	7.5	7.0	7.5	8.0	7.5	8.0	12.0	9.5	11.0	17.5	15.5	16.5
13	7.5	7.0	7.0	9.0	7.5	8.0	13.0	9.5	11.0	18.0	15.0	16.5
14	7.0	6.0	6.5	8.5	7.0	7.5	14.5	10.0	12.0	18.0	15.5	17.0
15	7.0	6.0	6.5	7.5	6.5	7.0	15.5	11.0	13.0	18.5	16.0	17.0
16	6.5	6.5	6.5	8.5	7.0	7.5	16.0	12.0	14.0	18.5	15.0	16.5
17	7.5	6.0	6.5	8.5	7.5	8.0	14.5	12.0	13.0	17.5	14.0	16.0
18	8.0	6.5	7.0	7.5	7.0	7.0	12.0	10.0	11.0	17.0	13.5	15.5
19	7.0	6.0	6.5	7.5	6.5	7.0	11.5	8.5	10.0	17.0	13.0	15.0
20	6.5	5.5	6.0	7.0	6.0	6.5	12.5	8.5	10.5	17.0	12.5	15.0
21	7.0	5.5	6.5	8.0	6.0	7.0	14.0	10.5	12.0	17.5	13.0	15.0
22	7.0	5.5	6.5	8.0	6.5	7.5	15.0	12.0	13.5	18.0	13.5	15.5
23	6.5	5.0	6.0	9.0	7.0	8.0	15.0	12.5	14.0	17.5	13.5	15.5
24	6.5	5.0	5.5	9.5	7.0	8.5	15.0	12.0	13.5	16.5	14.0	15.5
25	6.0	4.5	5.5	9.5	7.5	8.5	15.0	12.0	13.5	15.0	13.5	14.5
26	6.0	4.5	5.5	10.5	7.5	9.0	15.5	12.0	13.5	16.0	12.5	14.5
27	7.0	5.5	6.0	10.5	7.5	9.0	16.0	13.0	14.5	15.0	13.0	14.0
28	8.0	6.0	7.0	[illegible]	7.5	8.5	15.5	13.5	14.5	16.5	12.5	14.5
29	---	---	---	[illegible]	8.0	9.0	14.5	12.5	13.5	17.0	13.5	15.5
30	---	---	---	[illegible]	8.5	9.5	13.5	12.0	13.0	17.0	14.0	15.5
31	---	---	---	12.0	9.5	10.5	---	---	---	16.5	13.5	15.0
MONTH	8.5	4.5	6.5	12.0	6.0	8.0	16.0	8.5	12.5	18.5	9.5	15.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	12.0	14.5	21.5	18.0	19.5	19.5	16.5	18.0	18.5	16.5	17.5
2	18.5	14.0	16.5	21.0	17.5	19.5	20.5	17.0	18.5	17.5	15.5	16.5
3	20.5	15.5	18.0	20.5	17.0	19.0	21.0	17.5	19.5	16.5	14.5	15.5
4	21.5	17.0	19.5	19.5	17.0	18.0	22.0	18.5	20.5	16.0	13.5	15.0
5	21.0	16.5	18.5	19.0	15.5	17.5	21.5	18.5	20.0	16.0	13.0	14.5
6	21.0	16.5	19.0	19.0	16.0	17.5	21.0	18.0	19.5	15.5	13.5	14.5
7	20.0	17.0	18.5	19.0	16.5	18.0	21.0	17.5	19.5	15.0	13.5	14.5
8	20.5	17.0	18.5	19.5	17.0	18.0	21.5	18.0	20.0	15.0	13.5	14.5
9	19.5	16.0	18.0	19.5	16.5	18.0	22.0	18.5	20.5	15.0	13.5	14.0
10	20.0	16.0	18.0	20.0	16.5	18.0	21.5	18.5	20.0	14.5	12.5	13.5
11	20.5	15.5	18.5	20.5	16.5	18.5	21.0	18.0	19.5	15.0	13.0	14.0
12	21.5	16.5	19.0	21.0	17.0	19.0	20.5	17.5	19.0	16.0	13.5	14.5
13	21.5	17.0	19.5	21.5	17.5	19.5	20.0	17.5	18.5	16.5	14.0	15.0
14	21.0	18.0	19.5	22.0	18.0	20.0	20.0	17.5	18.5	16.5	13.5	15.0
15	19.0	15.5	17.0	21.0	18.0	19.5	19.0	16.5	18.0	16.5	13.5	15.0
16	15.5	14.0	15.0	19.0	16.5	18.0	19.5	16.5	18.0	16.0	13.0	15.0
17	16.5	13.0	14.5	17.5	14.5	16.0	20.0	16.5	18.0	15.0	12.0	14.0
18	18.5	13.5	16.0	14.5	13.0	14.0	20.0	16.5	18.5	15.0	11.5	13.5
19	20.0	15.5	18.0	17.0	13.0	15.0	20.5	17.0	19.0	15.0	12.0	13.5
20	18.0	16.5	17.5	18.5	14.5	16.5	20.5	17.5	19.0	14.5	11.5	13.0
21	18.0	15.5	16.5	18.0	16.5	16.5	20.5	17.5	19.0	14.0	11.5	13.0
22	18.5	14.0	16.0	17.5	16.0	16.5	18.5	16.5	17.5	15.0	11.5	13.5
23	18.5	14.5	16.5	18.5	15.0	16.5	18.0	16.0	17.0	14.5	12.0	13.5
24	20.0	15.5	18.0	19.5	16.5	18.0	18.5	15.0	17.0	14.5	12.5	13.5
25	21.0	16.5	18.5	19.5	17.5	18.5	19.0	16.5	17.5	14.5	12.0	13.5
26	22.0	17.5	19.5	20.0	17.5	18.5	19.0	16.5	18.0	14.5	12.5	13.5
27	21.5	18.0	19.5	20.0	17.0	18.5	19.0	16.5	18.0	14.5	11.5	13.5
28	21.5	18.0	20.0	20.0	17.0	18.5	19.5	17.0	18.0	14.5	11.5	13.0
29	22.0	18.5	20.0	21.0	17.5	18.5	19.5	17.0	18.5	14.0	11.0	12.5
30	22.0	18.0	20.0	19.5	17.5	18.5	19.0	16.5	18.0	14.0	11.0	13.0
31	---	---	---	19.5	16.5	18.0	19.0	16.5	18.0	---	---	---
MONTH	22.0	12.0	18.0	22.0	13.0	18.0	22.0	15.0	18.5	18.5	11.0	14.0
YEAR	22.0	1.5	12.0									

14371500 GRAVE CREEK AT PEASE BRIDGE, NEAR PLACER, OR

LOCATION.--Lat 42°38'30", long 123°12'40", in SE 1/4 sec.6, T.34 S., R.4 W., Jackson County, Hydrologic Unit 17100310, on right bank 0.5 mi downstream from Pease Bridge, 0.5 mi upstream from Boulder Creek, 5.4 mi east of Placer, and at mile 27.1.

DRAINAGE AREA.--22.1 mi^2 at measuring site 0.5 mi upstream.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1945 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,354.2 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamatiom bench mark). Prior to Aug. 4, 1955, at sites 0.5 mi upstream at datum 29.9 ft higher.

REMARKS.--Estimated daily discharges: Apr. 19-29, May 5-8, 11, 15, May 19 to June 22. Records good except those for the period Apr. 19 to June 22, which are poor. No regulation. One small diversion upstream from station. Prior to 1945, Columbia upper ditch diverted water about 2 mi upstream from station, bypassing station. Records herein are for measuring site.

AVERAGE DISCHARGE.--42 years (water years 1946-87), 59.1 ft^3/s, 36.32 in/yr, 42,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s Dec. 22, 1964, gage height, 11.20 ft, from rating curve extended above 1,200 ft^3/s on basis of slope-area measurement at gage height 9.66 ft; minimum discharge, 0.12 ft^3/s July 15, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	2130	912	4.65	Feb. 2	0300	a	*5.35
Feb. 2	0300	*1,220	5.21				

Minimum discharge, 0.84 ft^3/s Aug. 29, 30, Sept. 23-26.

a From outside high-water mark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	19	65	186	381	42	40	19	6.6	2.3	2.4	.94
2	4.9	14	50	186	764	42	39	18	6.0	2.3	2.2	.93
3	4.2	10	40	219	307	75	46	17	5.8	2.2	2.1	.93
4	3.7	8.3	33	163	194	91	40	14	5.8	2.3	1.9	.92
5	3.3	7.0	33	111	140	98	37	13	5.8	2.4	1.7	.92
6	3.1	6.5	32	81	110	93	34	12	5.8	2.4	1.6	.94
7	2.7	16	28	63	92	77	31	11	7.0	2.3	1.6	.95
8	2.5	23	25	50	80	70	29	10	6.4	2.2	1.5	.96
9	2.4	23	23	42	71	73	28	10	6.0	2.0	1.4	.97
10	2.4	28	21	36	63	68	28	9.7	5.4	2.1	1.3	.99
11	2.4	23	19	33	64	65	28	9.0	5.0	2.0	1.3	.96
12	2.2	18	17	32	62	112	26	8.7	4.5	2.0	1.2	.93
13	2.2	14	22	31	154	160	24	8.8	4.2	1.9	1.2	.96
14	2.2	12	27	30	194	145	23	8.4	4.0	1.7	1.2	.99
15	2.2	11	26	27	178	132	23	8.0	4.4	1.6	1.2	1.0
16	2.2	9.7	23	26	157	113	22	8.3	4.4	1.6	1.2	1.1
17	3.3	8.8	21	24	126	110	23	8.1	4.2	1.8	1.2	1.1
18	3.0	9.0	21	22	110	125	25	8.0	4.0	3.2	1.2	.99
19	2.7	13	22	20	94	115	23	7.8	4.0	5.5	1.2	.98
20	2.5	23	20	19	82	101	23	7.6	4.0	3.4	1.1	.97
21	2.3	102	19	18	76	88	23	7.4	4.0	4.1	1.1	.94
22	2.4	243	39	18	68	77	22	7.2	3.8	9.3	1.1	.92
23	2.3	107	83	21	64	80	21	7.0	3.9	6.2	1.1	.88
24	2.4	79	65	39	57	79	20	6.8	3.5	4.3	.97	.89
25	2.4	81	53	450	51	75	19	6.6	3.4	3.7	.96	.89
26	2.7	62	47	509	47	68	18	6.4	3.1	3.3	.95	.89
27	9.6	98	41	286	44	61	17	6.2	2.8	2.9	.95	.91
28	7.8	211	36	238	42	55	16	6.0	2.6	2.7	.95	.96
29	13	144	36	159	---	49	15	6.5	2.5	2.6	.92	.98
30	72	91	33	122	---	45	17	8.0	2.4	2.5	.91	.98
31	32	---	33	108	---	41	---	7.0	---	2.5	.94	---
TOTAL	208.9	1514.3	1053	3369	3872	2625	780	291.5	135.3	91.3	40.55	28.67
MEAN	6.74	50.5	34.0	109	138	84.7	26.0	9.40	4.51	2.95	1.31	.96
MAX	72	243	83	509	764	160	46	19	7.0	9.3	2.4	1.1
MIN	2.2	6.5	17	18	42	41	15	6.0	2.4	1.6	.91	.88
AC-FT	414	3000	2090	6680	7680	5210	1550	578	268	181	80	57
CFSM	.30	2.28	1.54	4.92	6.26	3.83	1.18	.43	.20	.13	.06	.04
IN.	.35	2.55	1.77	5.67	6.52	4.42	1.31	.49	.23	.15	.07	.05

CAL YR 1986 TOTAL 18397.12 MEAN 50.4 MAX 1060 MIN .68 AC-FT 36490 CFSM 2.28 IN. 30.97
WTR YR 1987 TOTAL 14009.52 MEAN 38.4 MAX 764 MIN .88 AC-FT 27790 CFSM 1.74 IN. 23.58

14372250 ROGUE RIVER AT MARIAL, OR

LOCATION.--Lat 42°42′50″, long 123°53′10″, in NW 1/4 SE 1/4 sec.9, T.33 S., R.10 W., Curry County, Hydrologic Unit 17100310, on right bank 0.2 mi downstream from Mule Creek and at mile 48.2.

DRAINAGE AREA.--3,812 mi².

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1974 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since June 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 27.5°C Aug. 5, 1977; minimum, 1.0°C Jan. 1, 2, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 23.0°C June 27-30; minimum, 2.5°C Jan. 17-21.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.0	13.5	13.5	11.5	10.5	11.0	7.0	6.5	6.5	7.5	6.5	7.0
2	14.0	13.0	13.5	10.5	10.0	10.5	6.5	6.0	6.5	7.5	7.0	7.0
3	13.5	12.5	13.0	10.5	9.5	10.0	6.0	6.0	6.0	7.5	7.0	7.0
4	13.5	12.5	13.0	9.5	9.5	9.5	6.5	6.0	6.0	7.5	7.0	7.0
5	14.5	13.0	13.5	9.5	9.0	9.5	7.0	6.5	6.5	7.0	7.0	7.0
6	14.5	13.5	14.0	9.5	9.0	9.0	7.5	7.0	7.5	7.0	6.5	6.5
7	15.0	13.5	14.0	9.0	8.5	9.0	7.5	7.0	7.5	6.5	5.5	6.0
8	14.5	13.5	14.0	9.5	8.5	9.0	7.0	7.0	7.0	5.5	4.5	5.0
9	14.5	13.5	14.0	9.5	9.0	9.0	7.0	6.0	6.0	4.5	4.5	4.5
10	14.0	13.0	13.5	10.0	9.0	9.5	6.0	5.5	5.5	4.5	4.0	4.5
11	13.5	13.0	13.0	10.0	9.0	9.5	5.5	5.0	5.5	5.0	4.0	4.5
12	13.5	12.5	13.0	9.0	8.5	9.0	5.5	5.0	5.5	5.0	4.5	5.0
13	12.5	12.0	12.0	8.5	8.0	8.5	6.0	5.0	5.5	5.5	5.0	5.0
14	12.0	11.5	12.0	9.0	8.0	8.5	6.5	6.0	6.0	5.0	5.0	5.0
15	12.0	11.0	12.0	9.0	9.0	9.0	7.0	6.0	6.5	5.0	4.0	4.5
16	12.0	11.0	11.5	9.5	9.0	9.5	7.0	6.5	6.5	4.0	3.0	3.5
17	12.0	11.5	11.5	9.5	9.0	9.5	6.5	5.5	6.0	3.0	2.5	3.0
18	12.0	11.5	12.0	9.5	9.0	9.0	6.0	5.5	6.0	3.0	2.5	2.5
19	12.5	11.5	12.0	9.5	9.0	9.0	6.0	5.5	6.0	3.0	2.5	2.5
20	12.0	11.5	12.0	9.5	9.0	9.0	6.5	6.0	6.0	3.0	2.5	3.0
21	12.0	11.5	12.0	9.5	9.5	9.5	6.5	6.0	6.5	3.5	2.5	3.0
22	12.0	11.0	11.5	9.5	9.5	9.5	6.5	6.5	6.5	3.5	3.0	3.0
23	12.0	11.0	11.5	9.5	9.0	9.0	7.0	6.5	7.0	4.5	3.5	4.0
24	12.0	11.0	11.5	9.5	9.0	9.0	7.5	7.0	7.0	6.5	4.5	5.0
25	12.5	11.0	11.5	9.0	8.0	8.5	7.0	7.0	7.0	7.0	6.0	6.5
26	13.0	12.0	12.5	8.0	7.5	7.5	7.5	7.0	7.0	8.0	7.0	7.0
27	13.0	12.5	13.0	8.5	7.5	8.5	7.0	6.5	7.0	8.0	7.5	7.5
28	13.0	12.5	13.0	9.0	8.0	8.5	6.5	6.5	6.5	7.5	7.0	7.5
29	12.5	11.5	12.0	8.5	7.5	8.0	6.5	6.0	6.5	7.0	7.0	7.0
30	11.5	11.0	11.5	8.0	7.0	7.5	6.5	6.0	6.0	7.0	7.0	7.0
31	12.0	11.0	11.5	---	---	---	6.5	5.5	6.0	7.5	7.0	7.0
MONTH	15.0	11.0	12.5	11.5	7.0	9.0	7.5	5.0	6.5	8.0	2.5	5.5

14372250 ROGUE RIVER AT MARIAL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	6.5	7.0	8.0	7.0	7.5	12.5	11.0	11.5	14.0	13.0	13.5
2	7.5	6.5	7.0	8.0	7.5	8.0	12.5	11.5	12.0	13.5	12.0	13.0
3	8.0	7.5	7.5	9.0	8.0	8.5	13.0	12.0	12.0	14.0	12.0	13.0
4	8.0	7.5	7.5	9.5	9.0	9.0	12.5	11.5	12.0	15.5	13.0	14.0
5	7.5	7.0	7.0	9.5	9.0	9.5	12.5	12.0	12.5	17.5	14.5	16.0
6	7.5	7.0	7.0	9.5	9.0	9.5	12.0	11.5	11.5	18.5	15.5	17.0
7	7.0	7.0	7.0	9.0	8.5	9.0	12.5	11.5	12.0	19.0	17.0	18.0
8	7.5	7.0	7.5	9.0	8.5	8.5	13.0	12.0	12.5	19.0	17.0	18.0
9	8.0	7.5	7.5	9.0	8.5	9.0	13.5	12.5	13.0	19.0	17.0	18.0
10	8.5	7.5	8.0	9.0	8.5	9.0	13.5	13.0	13.0	19.0	17.0	18.0
11	8.5	8.5	8.5	9.0	8.5	9.0	13.0	12.0	12.5	19.0	17.0	18.0
12	8.5	8.0	8.5	9.0	8.5	9.0	12.5	11.0	12.0	19.0	17.5	18.0
13	8.5	8.0	8.0	9.0	8.5	9.0	13.0	11.5	12.0	19.0	17.0	18.0
14	8.0	7.5	7.5	9.5	8.5	9.0	14.0	11.5	12.5	19.5	17.0	18.5
15	7.5	7.0	7.5	8.5	8.0	8.0	15.0	12.5	13.5	18.5	17.5	18.0
16	8.0	7.5	7.5	9.0	8.0	8.5	15.5	13.5	14.5	19.0	17.0	18.0
17	8.0	7.5	7.5	9.0	8.5	9.0	15.0	14.0	14.5	18.5	16.5	17.5
18	8.0	7.5	8.0	8.5	8.0	8.0	14.0	12.5	13.5	18.0	16.0	17.0
19	8.0	7.5	7.5	8.0	7.5	8.0	12.5	11.0	12.0	17.0	15.5	16.5
20	7.5	7.0	7.0	8.0	7.0	7.5	12.5	10.5	11.5	17.5	15.0	16.0
21	7.0	7.0	7.0	7.5	7.0	7.5	14.0	11.5	12.5	17.5	15.5	16.5
22	7.5	7.0	7.0	8.0	7.5	8.0	15.5	13.0	14.0	17.5	15.5	16.5
23	7.0	6.5	6.5	8.5	8.0	8.5	16.0	14.0	15.0	17.0	16.0	16.5
24	6.5	6.0	6.0	9.0	8.5	9.0	16.0	14.5	15.0	17.0	15.5	16.0
25	6.5	6.0	6.0	9.5	9.0	9.0	16.0	14.0	15.0	16.5	15.5	16.0
26	6.5	5.5	6.0	10.0	9.0	9.5	16.0	14.0	15.0	16.0	14.5	15.5
27	7.0	6.0	6.5	10.0	9.0	9.5	17.0	15.0	16.0	16.0	15.0	15.5
28	7.5	7.0	7.0	10.0	9.0	9.5	17.0	16.0	16.0	16.0	15.0	15.5
29	---	---	---	10.5	9.0	9.5	16.0	15.5	16.0	17.0	15.5	16.0
30	---	---	---	11.0	9.5	10.0	15.5	14.0	15.0	17.0	15.5	16.0
31	---	---	---	11.5	10.0	11.0	---	---	---	16.5	15.5	16.0
MONTH	8.5	5.5	7.5	11.5	7.0	9.0	17.0	10.5	13.5	19.5	12.0	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	15.5	16.0	22.5	20.5	21.5	20.0	18.0	18.5	19.5	18.0	19.0
2	18.0	15.0	16.5	22.0	20.5	21.0	20.0	17.5	19.0	19.0	17.0	18.0
3	20.0	17.0	18.5	21.5	20.0	21.0	20.5	18.5	19.5	18.5	16.0	17.5
4	21.0	19.0	20.0	21.0	19.5	20.0	22.0	20.0	20.5	17.5	16.0	16.5
5	20.5	19.5	20.0	21.0	18.5	19.5	22.5	20.5	21.5	16.5	15.0	16.0
6	21.0	19.5	20.0	20.5	17.5	19.0	21.5	20.0	21.0	16.5	15.0	15.5
7	21.0	20.0	20.5	20.5	17.5	19.0	21.5	20.0	20.5	16.5	14.5	15.5
8	21.0	20.5	20.5	20.5	18.5	19.5	22.0	20.0	21.0	15.5	14.5	15.0
9	20.5	19.5	20.0	20.5	18.5	19.5	21.5	20.5	21.0	15.5	14.5	15.0
10	20.5	19.0	19.5	20.0	18.5	19.0	22.0	20.5	21.5	15.5	14.5	15.0
11	20.5	18.5	19.5	21.0	18.0	19.5	21.5	20.5	21.0	15.0	14.0	14.5
12	21.0	19.5	20.0	21.0	19.0	20.0	21.5	20.0	20.5	15.5	14.5	15.0
13	22.5	19.5	21.0	22.5	20.0	21.0	21.0	19.5	20.0	16.0	15.0	15.5
14	22.0	20.5	21.5	22.5	20.5	21.5	20.5	19.5	19.5	16.0	15.5	15.5
15	21.0	19.0	19.5	22.5	21.0	21.5	20.0	18.5	19.0	16.0	15.5	15.5
16	19.0	16.0	17.5	21.5	19.5	20.0	19.5	17.5	19.0	15.5	15.0	15.0
17	17.0	15.5	16.0	19.5	16.5	18.0	20.0	17.5	19.0	15.5	15.0	15.0
18	18.0	15.5	16.5	17.5	15.5	16.5	20.5	18.0	19.0	15.5	14.5	15.0
19	19.5	16.5	18.0	15.5	15.0	15.0	20.5	18.5	19.5	15.0	14.0	14.5
20	20.0	18.0	19.0	18.0	15.0	16.5	20.5	19.0	19.5	15.0	14.0	14.5
21	19.5	17.5	18.0	18.0	16.5	17.0	20.5	19.0	19.5	15.0	14.0	14.5
22	19.0	17.0	17.5	17.5	16.5	17.0	20.0	18.5	19.5	15.0	14.0	14.5
23	19.5	16.5	18.0	17.5	16.5	17.0	19.0	17.5	18.5	15.0	14.0	14.5
24	20.0	17.0	18.5	19.5	16.5	17.5	19.0	17.0	18.0	15.0	14.0	14.5
25	21.5	18.5	20.0	19.5	18.0	19.0	19.0	17.0	18.0	15.5	14.0	14.5
26	22.5	20.0	21.0	19.5	18.0	19.0	20.0	17.5	19.0	15.0	14.0	14.5
27	23.0	20.5	22.0	20.0	18.0	19.0	20.0	18.0	19.0	14.5	14.0	14.5
28	23.0	20.5	22.0	20.0	18.5	19.0	20.0	18.0	19.0	14.5	13.5	14.0
29	23.0	21.0	22.0	20.0	18.5	19.0	20.0	18.5	19.5	14.5	13.5	14.0
30	23.0	21.0	22.0	19.5	18.0	19.0	20.5	18.5	19.5	14.5	13.5	14.0
31	---	---	---	20.0	18.0	19.0	20.0	18.5	19.5	---	---	---
MONTH	23.0	15.0	19.5	22.5	15.0	19.0	22.5	17.0	19.5	19.5	13.5	15.0
YEAR	23.0	2.5	12.5									

14372300 ROGUE RIVER NEAR AGNESS, OR
(National stream quality accounting network station)

LOCATION.--Lat 42°34'50", long 124°03'30", in NE 1/4 NW 1/4 sec.6, T.35 S., R.11 W., Curry County, Hydrologic Unit 17100310, on left bank 0.8 mi upstream from Shasta Costa Creek, 1.5 mi north of Agness, 2.6 mi upstream from Illinois River, and at mile 29.7.

DRAINAGE AREA.--3,939 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 113.81 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Public Roads).

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since February 1977 by Lost Creek Lake (station 14335040), since December 1980 by Applegate Lake (station 14361900), slight regulation by Fish Lake and Emigrant Lake. Many diversions for irrigation and mining.

AVERAGE DISCHARGE.--27 years, 6,227 ft^3/s, 4,511,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 290,000 ft^3/s Dec. 23, 1964, from slope-area measurement; maximum gage height, 68.03 ft Dec. 23, 1964, from floodmark (backwater from Illinois River); minimum discharge, 608 ft^3/s July 9, 10, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56,500 ft^3/s Feb. 2, gage height, 17.24 ft; maximum gage height, 17.66 ft Feb. 2, from crest-stage gage; minimum discharge, 1,280 ft^3/s Sept. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2400	3540	5170	7600	11400	3600	4000	4060	2470	2180	2230	2700
2	2290	3160	4460	14700	44700	3540	3910	[illegible]	2480	2170	2230	2680
3	2180	2950	4260	12400	26500	5630	3880	4080	2160	2090	2220	2680
4	2160	2910	3950	12600	15500	5910	3910	[illegible]	2260	2080	2130	2730
5	2170	3150	3920	8550	11200	5690	3710	[illegible]	1970	2100	2090	2780
6	2100	3180	3630	6500	8830	5820	3560	[illegible]	1910	2180	2160	2780
7	2250	3310	3490	5340	7110	5350	3540	[illegible]	1970	2170	2140	2810
8	2060	3440	3300	4570	5850	4920	3330	[illegible]	2010	[illegible]	2060	2800
9	2010	3560	3150	4060	5180	5220	2990	[illegible]	2110	2140	2130	2830
10	2330	3570	3040	3730	4780	5090	2770	3330	2060	2100	[illegible]	2790
11	2040	3770	2930	3470	4470	8460	2690	[illegible]	2040	2080	[illegible]	2450
12	1900	3620	2860	3450	4380	12400	2790	[illegible]	1990	2080	[illegible]	2130
13	1880	3370	2890	3490	[illegible]	15800	3140	[illegible]	2250	2090	[illegible]	1830
14	1860	2880	2980	3400	14200	12700	2940	[illegible]	2210	2030	[illegible]	1800
15	1860	2520	3080	3300	13600	12300	2870	2620	2180	2010	[illegible]	1640
16	1830	2480	2960	3100	12800	10600	2750	2340	2290	1970	2120	1620
17	1880	2430	2840	2960	10400	8990	2840	2370	2330	2000	2140	1510
18	1960	2440	2790	2860	8840	8430	3580	2370	2340	2160	2120	1450
19	1940	2580	2860	2800	7430	9490	3690	2300	2290	2910	2120	1470
20	1900	2820	2830	2690	6590	9190	3630	2210	2220	2880	2110	1440
21	1870	4160	2770	2630	6060	8130	3550	2170	2170	2600	2110	1440
22	1850	7360	3230	2590	5660	7280	3290	2160	2210	2600	2370	1440
23	1870	8360	4760	2700	5480	7010	3160	2120	2220	3300	2020	1410
24	1850	5900	4860	4480	5240	6990	3320	2050	2160	2980	[illegible]	1390
25	1860	5500	4410	13800	4630	6050	3360	2340	2170	2670	[illegible]	1400
26	1910	5860	4170	25400	4240	5530	3310	2430	2120	2540	2480	1410
27	2250	8480	3830	15700	3980	5130	3230	2180	2220	2490	2490	1440
28	2180	12000	3560	16100	3780	4800	3180	[illegible]	2260	2360	2490	1460
29	2300	10900	3750	13700	---	4560	3240	[illegible]	2260	2320	2550	1470
30	3480	7060	3760	10800	---	4350	3480	2120	2210	2280	2680	1450
31	3830	---	3880	9110	---	4150	---	2150	---	2240	2710	---
TOTAL	66250	137260	110350	228150	269100	220110	99490	85650	65390	71910	69590	59230
MEAN	2137	4575	3560	7360	9611	7100	3316	2763	2180	2320	2245	1974
MAX	3830	12000	5170	25400	44700	15800	4000	4080	2480	3300	2710	2830
MIN	1830	2430	2770	2590	3780	3540	2690	2050	1960	1970	2030	1390
AC-FT	131400	272300	218900	452500	533800	436600	197300	169900	129700	142600	138000	117500

CAL YR 1986 TOTAL 2001590 MEAN 5484 MAX 68100 MIN 1790 AC-FT 3970000
WTR YR 1987 TOTAL 1482480 MEAN 4062 MAX 44700 MIN 1390 AC-FT 2940000

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1960 to September 1987 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1960.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 26.5°C on several days in 1962, Aug. 3, 6, 9-11, 1977; minimum, 1.0°C Jan. 22-25, 1962, Dec. 9-16, 1972, Jan. 9, 10, 1977, Jan. 1-3, 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 24.0°C June 27-30, July 14; minimum, 2.5°C Jan. 19, 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCARB (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 08...	1230	2060	103	7.3	14.0	10.2	100	K25	K15	41	0	9.7
DEC 16...	1230	2970	117	7.1	7.0	12.2	101	K4	47	44	0	10
FEB 18...	1145	8810	96	7.1	8.5	11.9	101	47	410	43	0	9.8
APR 29...	1215	3230	88	7.4	15.5	10.0	102	K15	K8	38	0	8.8
JUN 09...	1330	2130	99	7.2	20.0	9.3	104	K8	K6	37	0	8.8
AUG 25...	1145	2520	85	7.9	18.5	9.3	99	K6	90	31	0	7.3

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS IT FIELD (MG/L AS CACO3)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE IT-FLD (MG/L AS HCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT 08...	4.0	4.9	1.2	46	55	0	4.9	2.8	<0.1	<0.01	0.1
DEC 16...	4.6	5.1	1.0	49	57	0	4.1	2.8	<0.1	<0.01	0.2
FEB 18...	4.6	4.0	0.8	45	55	0	3.8	2.1	<0.1	0.04	0.2
APR 29...	3.9	4.6	1.0	44	52	0	3.4	2.1	<0.1	<0.01	<0.1
JUN 09...	3.7	4.7	1.2	46	55	0	4.2	2.5	0.2	0.04	0.1
AUG 25...	3.0	4.7	1.6	39	47	0	2.8	1.6	0.1	<0.01	<0.1

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 08...	0.3	0.05	0.06	0.08	21	81	77	451	1.4	--	--
DEC 16...	0.7	0.05	0.06	0.07	22	91	80	730	1.2	4	32
FEB 18...	0.4	0.03	0.03	0.05	20	76	73	1810	6.5	19	452
APR 29...	0.6	0.03	0.05	0.06	21	62	71	541	0.5	--	--
JUN 09...	0.8	0.05	0.08	0.07	21	76	75	437	1.8	--	--
AUG 25...	0.2	0.04	0.06	0.08	26	61	71	415	0.7	--	--

K - Results based on colony count outside acceptable range (non-ideal colony count).

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT										
08...	20	<1	18	<0.5	<1	<1	<3	2	34	<5
DEC										
16...	--	--	--	--	--	--	--	--	--	--
FEB										
18...	110	<1	19	0.7	<1	<1	<3	4	130	<5
APR										
29...	40	<1	17	<0.5	1	<1	<3	2	44	<5
JUN										
09...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	10	1	8	<0.5	1	<1	<3	1	51	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT										
08...	<4	2	0.2	<10	<1	<1	<1	70	<6	9
DEC										
16...	--	--	--	--	--	--	--	--	--	--
FEB										
18...	<4	9	--	<10	2	<1	<1	63	<6	13
APR										
29...	<4	3	--	<10	<1	<1	<1	67	<6	5
JUN										
09...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	<4	6	--	<10	<1	<1	<1	59	<6	3

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.5	13.5	14.0	12.0	11.5	11.5	7.5	7.0	7.5	8.0	7.0	7.5
2	14.5	13.5	14.0	11.5	11.0	11.0	7.0	6.5	7.0	7.5	7.5	7.5
3	14.5	13.0	13.5	11.0	10.5	10.5	7.0	6.5	6.5	7.5	7.5	7.5
4	15.0	13.0	13.5	10.5	10.0	10.0	6.5	6.5	6.5	7.5	7.5	7.5
5	15.0	13.0	14.0	10.5	9.5	10.0	7.0	6.5	7.0	7.5	7.5	7.5
6	15.5	13.5	14.0	10.0	9.5	10.0	8.0	7.5	7.5	7.5	6.5	7.0
7	16.0	13.5	14.5	10.0	9.0	9.5	8.0	7.5	7.5	6.5	6.0	6.5
8	16.0	14.0	14.5	9.5	9.0	9.5	7.5	7.0	7.5	6.0	5.5	5.5
9	15.5	13.5	14.5	10.0	9.5	10.0	7.0	6.5	7.0	5.5	5.0	5.5
10	15.0	13.5	14.0	10.0	9.5	10.0	6.5	6.0	6.0	5.0	4.5	5.0
11	15.0	13.0	14.0	10.0	9.5	10.0	6.0	5.5	5.5	5.5	5.0	5.0
12	14.5	12.5	13.5	10.0	9.0	9.5	6.0	6.0	6.0	5.5	5.5	5.5
13	14.0	12.5	13.0	9.5	9.0	9.0	6.5	6.0	6.0	6.0	5.5	5.5
14	13.5	12.0	12.5	9.5	9.0	9.0	7.0	6.0	6.5	6.0	5.5	5.5
15	13.5	12.0	12.5	9.5	9.0	9.5	7.0	7.0	7.0	5.5	4.5	5.0
16	13.0	11.5	12.0	10.0	9.5	9.5	7.0	7.0	7.0	4.5	3.5	4.0
17	13.0	12.0	12.5	10.5	9.5	10.0	7.0	6.5	6.5	3.5	3.0	3.5
18	13.5	12.0	12.5	10.0	9.5	9.5	6.5	6.0	6.0	3.5	3.0	3.0
19	13.0	12.0	12.5	10.0	9.5	10.0	6.5	6.5	6.5	3.5	2.5	3.0
20	13.5	12.0	12.5	10.0	9.5	10.0	7.0	6.5	6.5	3.5	2.5	3.0
21	13.5	12.0	12.5	10.0	9.5	10.0	7.0	6.5	7.0	3.5	3.0	3.0
22	13.5	12.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.0	3.5	3.5
23	12.5	[illegible]	[illegible]	[illegible]	9.5	[illegible]	[illegible]	[illegible]	[illegible]	4.5	3.5	4.0
24	12.5	12.0	[illegible]	[illegible]	9.5	9.5	8.0	7.5	7.5	6.0	4.5	5.5
25	12.5	12.0	[illegible]	9.5	8.5	9.0	7.5	7.5	7.5	7.5	6.0	7.0
26	13.5	12.5	13.0	8.5	8.0	8.5	8.0	7.5	7.5	8.0	7.5	7.5
27	14.0	13.0	13.5	9.5	8.0	9.0	8.0	7.5	7.5	8.5	8.0	8.0
28	13.5	13.0	13.5	9.5	9.0	9.5	7.5	7.0	7.0	8.0	7.5	7.5
29	13.0	12.5	13.0	9.0	8.0	8.5	7.5	7.0	7.5	7.5	7.5	7.5
30	12.5	12.0	12.5	8.0	7.5	8.0	7.0	6.5	7.0	7.5	7.5	7.5
31	12.5	12.0	12.0	---	---	---	7.0	6.5	7.0	8.0	7.5	7.5
MONTH	16.0	11.5	[illegible]	12.0	7.5	9.5	8.0	5.5	7.0	8.5	2.5	6.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.5	8.0	8.0	7.5	7.5	13.0	[illegible]	[illegible]	[illegible]	14.0	14.0
2	8.0	[illegible]	[illegible]	8.5	8.0	8.0	12.0	[illegible]	[illegible]	14.0	13.0	13.5
3	8.5	8.0	8.0	9.0	8.5	9.0	12.5	12.0	12.0	14.0	12.5	13.5
4	8.5	8.0	8.0	9.5	9.0	9.0	13.5	12.0	12.5	15.5	13.5	14.5
5	8.0	7.5	7.5	10.0	9.0	10.0	12.5	12.0	12.0	17.5	14.5	16.0
6	8.0	7.5	7.5	10.0	9.5	10.0	12.5	12.0	12.0	18.5	16.5	17.5
7	8.0	7.5	7.5	9.5	9.0	9.5	13.0	12.0	12.5	19.5	17.5	18.5
8	8.0	7.5	8.0	9.5	9.0	9.5	14.0	12.0	13.0	20.0	18.0	19.0
9	9.0	8.0	8.0	9.5	9.0	9.0	14.0	12.5	13.0	20.0	18.0	19.0
10	9.0	8.0	8.5	9.5	9.0	9.5	13.5	13.0	13.0	20.0	17.5	18.5
11	9.5	8.5	9.0	9.5	9.0	9.5	13.5	12.5	13.0	20.0	18.0	19.0
12	9.5	8.5	9.0	9.5	9.5	9.5	13.5	12.0	12.5	19.5	18.5	19.0
13	9.0	8.5	8.5	9.5	9.0	9.5	13.5	12.5	13.0	20.5	18.5	19.0
14	8.5	8.0	8.0	9.5	9.0	9.5	14.5	12.5	13.5	20.0	18.5	19.0
15	7.5	7.5	7.5	9.0	8.5	9.0	15.0	13.5	14.0	19.0	18.0	18.5
16	8.0	7.5	8.0	9.0	8.5	9.0	16.0	14.0	14.5	19.5	17.5	18.5
17	8.5	8.0	8.0	10.0	9.0	9.5	15.5	14.0	14.5	19.5	17.5	18.0
18	8.5	8.0	8.0	9.0	8.5	8.5	14.5	13.5	14.0	18.0	16.5	17.5
19	8.5	7.5	8.0	8.5	8.0	8.5	13.5	12.5	13.0	---	---	---
20	8.0	7.5	7.5	8.5	7.5	8.0	12.5	11.5	12.0	---	---	---
21	8.0	7.5	7.5	8.5	7.5	8.0	14.0	11.5	12.5	---	---	---
22	8.0	7.0	7.5	8.5	7.5	8.0	15.5	13.5	14.5	---	---	---
23	7.5	7.0	7.5	9.0	8.0	8.5	16.5	14.5	15.5	---	---	---
24	7.0	6.5	7.0	10.0	8.5	9.5	16.5	14.5	15.5	---	---	---
25	7.0	6.0	6.5	10.5	9.0	9.5	16.0	14.5	15.5	---	---	---
26	7.0	6.0	6.5	11.0	9.0	10.0	16.5	15.0	15.5	---	---	---
27	7.0	6.0	6.5	10.0	9.0	9.5	17.5	15.5	16.5	---	---	---
28	8.5	7.0	7.5	10.5	9.0	10.0	17.0	16.0	16.5	---	---	---
29	---	---	---	10.5	9.5	10.0	17.0	16.0	16.5	---	---	---
30	---	---	---	11.0	10.0	10.5	16.0	15.0	15.5	---	---	---
31	---	---	---	12.0	10.0	11.0	---	---	---	---	---	---
MONTH	9.5	6.0	8.0	12.0	7.5	9.0	17.5	11.0	13.5	---	---	---

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	23.5	21.5	22.5	21.0	19.0	20.0	21.0	19.5	20.0
2	---	---	---	23.5	21.0	22.0	21.5	19.5	20.0	20.5	19.0	19.5
3	---	---	---	23.0	21.0	21.5	22.0	19.5	20.5	20.0	18.0	19.0
4	---	---	---	22.0	20.0	21.0	23.0	20.5	21.5	19.5	17.5	18.5
5	---	---	---	21.5	19.5	20.5	23.5	21.0	22.0	17.5	16.5	17.5
6	---	---	---	21.0	19.0	20.0	23.5	21.5	22.0	17.5	16.5	17.0
7	---	---	---	21.0	19.0	20.0	23.5	21.0	22.0	17.5	16.0	16.5
8	---	---	---	21.5	19.5	20.0	23.5	21.0	22.0	17.0	16.0	16.5
9	---	---	---	21.5	19.5	20.5	23.5	21.0	22.0	16.5	16.0	16.0
10	---	---	---	21.5	19.5	20.5	23.5	21.0	22.0	16.5	15.5	16.0
11	---	---	---	22.0	19.5	20.5	23.5	21.0	22.0	17.0	15.5	16.0
12	22.5	---	---	22.5	20.0	21.0	23.0	21.0	21.5	17.0	15.5	16.0
13	23.0	19.5	21.0	23.5	20.5	22.0	21.5	20.5	21.0	18.0	16.0	16.5
14	22.5	20.5	21.5	24.0	21.5	22.5	22.0	20.0	20.5	17.5	16.5	16.5
15	20.5	19.0	20.0	23.5	21.5	22.5	21.5	19.0	20.0	18.0	16.0	16.5
16	19.0	17.0	18.5	21.5	20.0	21.0	21.0	19.5	20.0	17.5	15.5	16.5
17	19.0	16.5	17.5	20.0	18.0	19.0	21.0	19.0	20.0	17.0	15.0	16.0
18	19.0	16.5	17.5	18.0	17.0	17.5	21.5	19.0	20.0	17.5	15.5	16.5
19	20.0	17.0	18.5	18.0	16.5	17.0	21.5	19.5	20.0	16.5	15.5	16.0
20	19.5	18.0	18.5	18.5	15.5	17.0	21.5	19.5	20.5	16.5	15.5	16.0
21	20.0	18.5	19.0	18.0	17.5	17.5	22.0	19.5	20.5	16.0	15.5	15.5
22	20.0	17.5	18.5	20.0	17.5	18.0	21.0	19.5	20.0	16.0	15.0	15.5
23	21.0	18.0	19.5	19.5	17.5	18.5	21.0	19.5	20.0	16.5	15.5	15.5
24	21.5	18.0	19.5	19.0	17.5	18.0	20.5	18.5	19.5	16.0	15.5	15.5
25	22.5	19.0	20.5	20.5	18.5	19.5	20.0	18.5	19.0	16.5	15.5	16.0
26	23.0	20.0	21.5	20.5	19.0	19.5	21.0	19.0	19.5	16.5	15.5	16.0
27	24.0	21.0	22.5	21.5	19.0	20.0	21.0	19.0	20.0	16.5	15.0	15.5
28	24.0	21.5	22.5	21.5	19.5	20.0	21.5	19.5	20.0	16.0	15.0	15.5
29	24.0	21.5	22.5	21.5	19.5	20.0	21.5	19.5	20.5	16.0	14.5	15.5
30	24.0	21.5	22.5	21.0	19.5	20.0	22.0	20.0	20.5	16.0	14.5	15.5
31	---	---	---	21.0	19.0	19.5	22.0	20.5	21.0	---	---	---
MONTH	---	---	---	24.0	15.5	20.0	23.5	18.5	20.5	21.0	14.5	16.5

14372500 EAST FORK ILLINOIS RIVER NEAR TAKILMA, OR

LOCATION.--Lat 42°00'10", long 123°37'30", in SE 1/4 NE 1/4 sec.15, T.41 S., R.8 W., Josephine County, Hydrologic Unit 17100311, Siskiyou National Forest, on right bank 0.3 mi downstream from Dunn Creek (California-Oregon State line), 3.4 mi south of Takilma, and at mile 71.2.

DRAINAGE AREA.--42.3 mi².

PERIOD OF RECORD.--April to September 1926, April 1927 to April 1932, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1318. Records prior to 1942 water year not equivalent owing to large diversions.

REVISED RECORDS.--WSP 1184: 1948. WSP 1288: 1951(P). WSP 1398: 1946, 1947(M), 1949. WSP 1738: Drainage area (former site).

GAGE.--Water-stage recorder. Elevation of gage is 1,780 ft, from topographic map. Prior to Oct. 31, 1946, nonrecording gage at sites 0.6 mi downstream at different datums. Oct. 31, 1946, to May 13, 1949, nonrecording gage and May 14, 1949, to Aug. 23, 1965, water-stage recorder at site 0.6 mi downstream at datum 1,746.6 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. No regulation. Two small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--46 years (water years 1942-87), 179 ft³/s, 57.47 in/yr, 129,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Dec. 22, 1964, gage height, 14.90 ft, present site and datum, from floodmark, from rating curve extended above 4,400 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 4.6 ft³/s Nov. 3, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 2	0500	*2,440	*6.90				

Minimum discharge, 6.2 ft³/s Sept. 23-25, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	143	110	852	924	91	168	113	38	14	10	6.9
2	50	[illegible]	97	603	1680	104	174	93	33	14	9.9	7.3
3	42	72	87	677	817	643	169	89	31	14	9.6	7.3
4	39	59	88	433	468	542	148	89	29	14	9.1	7.5
5	37	51	133	274	318	1110	133	100	28	14	8.9	7.4
6	33	44	127	198	250	670	122	109	28	14	8.7	7.4
7	29	45	109	154	212	405	118	111	28	14	8.6	7.6
8	27	42	94	126	191	305	128	101	27	13	8.5	7.9
9	25	39	82	110	176	276	135	87	26	13	8.2	7.4
10	23	37	72	100	171	233	144	77	26	13	8.0	7.3
11	22	36	65	97	185	241	158	71	24	13	8.0	7.6
12	20	33	60	112	204	1170	128	68	23	12	8.1	7.9
13	19	31	106	114	706	933	113	64	22	11	8.2	7.9
14	19	31	126	108	590	644	112	59	21	11	8.4	7.7
15	18	31	107	99	510	479	117	56	22	11	8.5	8.1
16	18	28	92	91	405	350	119	55	23	11	8.4	7.7
17	29	28	81	85	305	342	126	50	23	12	8.1	7.6
18	27	31	80	79	246	422	116	47	21	14	7.9	7.2
19	23	46	80	73	207	367	99	43	20	14	7.8	6.8
20	21	92	75	68	182	288	90	42	20	13	7.8	6.9
21	19	371	69	65	167	237	94	39	22	13	7.9	6.8
22	19	682	154	67	149	204	121	38	20	17	7.8	6.5
23	18	317	234	80	138	212	128	37	19	14	7.7	6.4
24	18	200	180	688	125	199	113	37	18	13	7.5	6.3
25	18	151	143	1090	114	187	104	38	18	13	7.4	6.7
26	22	116	126	876	105	179	113	37	17	12	7.3	7.0
27	40	108	111	605	98	169	130	36	16	11	7.2	7.1
28	32	171	97	568	93	158	133	34	16	11	7.2	7.0
29	92	179	152	381	---	149	111	33	15	11	7.0	6.7
30	505	132	158	287	---	147	111	32	14	11	6.8	6.5
31	257	---	221	299	---	154	---	46	---	11	6.9	---
TOTAL	1620	3442	3516	9459	9936	11610	3775	1931	688	396	251.4	216.4
MEAN	52.3	115	113	305	355	375	126	62.3	22.9	12.8	8.11	7.21
MAX	505	682	234	1090	1880	1170	174	113	38	17	10	8.1
MIN	18	28	60	65	93	91	90	32	14	11	6.8	6.3
AC-FT	3210	6830	6970	18760	19710	23030	7490	3830	1360	785	499	429
CFSM	1.24	2.71	2.68	7.21	8.39	8.85	2.97	1.47	.54	.30	.19	.17
IN.	1.42	3.03	3.09	8.32	8.74	10.21	3.32	1.70	.61	.35	.22	.19

CAL YR 1986 TOTAL 66422.3 MEAN 182 MAX 3340 MIN 7.3 AC-FT 131700 CFSM 4.30 IN. 58.41
WTR YR 1987 TOTAL 46840.8 MEAN 128 MAX 1880 MIN 6.3 AC-FT 92910 CFSM 3.03 IN. 41.19

14375100 SUCKER CREEK BELOW LITTLE GRAYBACK CREEK, NEAR HOLLAND, OR

LOCATION.--Lat 42°09'35", long 123°28'40", in NE 1/4 SW 1/4 sec.24, T.39 S., R.7 W., Josephine County, Hydrologic Unit 17100311, on right bank 500 ft downstream from Little Grayback Creek, 2.0 mi downstream from Grayback Creek, 3.7 mi northeast of Holland, and at mile 9.3.

DRAINAGE AREA.--83.9 mi².

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WDR OR-86-2: 1985.

GAGE.--Water-stage recorder. Datum of gage is 1,713.92 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark).

REMARKS.--No estimated daily discharges. Records good. Grayback Canal and 3 small diversions from Grayback and Cave Creeks divert water for domestic use and irrigation upstream from station. Return flow from these diversions enters creek upstream from station.

AVERAGE DISCHARGE.--22 years, 241 ft³/s, 39.01 in/yr, 174,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,950 ft³/s Jan. 15, 1974, gage height, 8.20 ft; minimum discharge, 12 ft³/s Oct. 20, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1940, 10.8 ft on Dec. 22, 1964, from floodmark, discharge, 13,300 ft³/s, from estimate based on slope-area measurement of peak flow at site 0.7 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of [illegible] ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Feb. 2	0430	*2,850	[illegible]	Feb. 2	0430	(a)	*8.8[illegible]

Minimum discharge, 14 ft³/s Sept. 2.

(a) From outside high-water mark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	101	116	419	132	148	251	245	97	37	28	19
2	58	81	107	385	3260	152	254	212	91	37	[illegible]	[illegible]
3	[illegible]	73	99	442	914	424	263	[illegible]	[illegible]	37	26	19
4	[illegible]	64	98	343	584	397	246	[illegible]	[illegible]	38	25	19
5	[illegible]	67	114	739	441	531	236	227	88	39	25	19
6	41	56	126	202	464	531	228	252	67	37	25	19
7	42	64	98	174	[illegible]	412	221	247	64	35	25	20
8	34	63	91	153	[illegible]	358	233	227	61	36	24	20
9	37	71	85	138	246	336	232	211	64	36	23	20
10	36	63	85	128	241	307	242	193	62	34	23	19
11	35	57	76	127	250	334	253	181	[illegible]	34	22	19
12	35	54	75	127	242	284	228	176	59	32	22	20
13	37	52	96	122	409	795	217	166	57	31	22	21
14	31	52	100	120	404	623	222	155	56	29	22	19
15	31	56	92	115	468	554	226	152	56	28	23	20
16	32	49	88	113	433	532	232	143	67	28	21	20
17	36	49	81	108	372	487	241	132	59	33	21	19
18	41	44	83	103	326	504	237	123	54	37	22	19
19	39	66	83	93	285	473	208	116	52	44	22	19
20	35	86	79	91	252	425	200	113	52	38	22	18
21	34	143	[illegible]	91	233	343	214	107	59	37	21	18
22	33	214	121	95	213	359	249	103	52	61	21	18
23	37	198	151	101	200	356	250	100	49	40	21	16
24	31	161	131	317	192	334	231	99	47	38	20	17
25	30	132	121	627	173	319	230	102	45	39	20	18
26	36	118	116	725	166	325	252	95	53	33	20	18
27	[illegible]	111	107	601	158	285	276	89	41	32	22	18
28	33	151	170	568	151	271	281	86	40	31	19	18
29	30	151	124	452	---	258	253	82	39	30	18	16
30	143	124	118	379	---	249	257	85	38	30	18	16
31	147	---	136	336	---	248	---	525	---	29	18	---
TOTAL	1241	2926	3148	8072	11184	12497	7157	4731	1727	1094	686	559
MEAN	40.0	97.5	102	260	399	403	239	153	57.6	35.3	22.1	18.6
MAX	147	324	157	725	2060	795	281	245	93	61	28	20
MIN	30	46	75	92	151	148	200	82	38	28	18	16
AC-FT	[illegible]	5800	6240	16010	22180	24790	14200	9380	3430	2170	1360	1110
CFSM	.48	1.16	1.21	3.10	4.76	4.80	2.84	1.82	.69	.42	.26	.22
IN.	.55	1.30	1.40	3.58	4.96	5.54	3.17	2.10	.77	.49	.30	.25

CAL YR 1986 TOTAL [illegible] MEAN 215 MAX 3160 MIN 17 AC-FT 156000 CFSM 2.57 IN. 34.87
WTR YR 1987 TOTAL 55022 MEAN 152 MAX 2060 MIN 16 AC-FT 109900 CFSM 1.81 IN. 24.57

14375400 ELK CREEK NEAR O'BRIEN, OR

LOCATION (REVISED).--Lat 42°02'00", long 123°44'32", in SE 1/4 NE 1/4 sec.3, T.41 S., R.9 W., Josephine County, Hydrologic Unit 17100311, on right bank 0.7 mi downstream from Gilligan Creek, 0.8 mi west of U.S. Highway 199, about 3.1 mi southwest of O'Brien, and at mile 0.6.

DRAINAGE AREA.--26.6 mi^2, revised.

PERIOD OF RECORD.--October 1985 to current year. Records November 1969 to September 1985 in files of the Oregon Water Resources Department, Salem, Oregon.

GAGE.--Water-stage recorder. Elevation of gage is 1,560 ft, from topographic map. Prior to November 1978, at site 1,100 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. No regulation. Minor diversion for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,610 ft^3/s Jan. 16, 1971; minimum, 0.33 ft^3/s Aug. 11, 12, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 2	0400	*1,440	*5.90				

Minimum discharge, 0.63 ft^3/s Sept. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	70	77	736	529	63	72	40	15	3.3	2.2	.69
2	16	48	61	490	1110	68	68	34	13	3.4	2.0	.70
3	14	37	52	575	504	99	65	29	12	3.4	1.8	.88
4	12	31	48	396	317	89	61	26	11	3.9	1.6	1.0
5	11	28	71	254	234	150	58	24	11	4.4	1.4	1.2
6	10	25	80	185	188	155	55	23	10	3.8	1.3	1.2
7	9.9	25	68	145	157	133	53	22	9.6	3.5	1.0	1.6
8	9.4	23	58	119	136	143	51	22	8.6	3.3	1.1	1.8
9	9.1	21	52	100	120	158	48	19	8.7	3.0	1.1	1.9
10	9.0	20	46	87	106	138	48	19	8.7	2.9	1.1	1.7
11	9.0	19	41	78	104	174	46	18	8.0	2.7	1.1	1.9
12	8.9	18	38	93	100	798	43	17	7.8	2.5	1.1	2.1
13	8.8	17	65	102	349	715	42	17	7.0	2.2	1.1	2.0
14	8.8	17	90	93	438	622	40	17	6.8	2.0	1.2	1.9
15	8.6	17	81	84	354	432	39	16	7.8	1.8	1.3	2.0
16	8.4	16	67	77	345	287	38	16	9.2	1.9	1.3	2.1
17	18	15	58	70	262	236	38	15	8.8	2.2	1.2	1.9
18	18	17	54	65	205	269	38	15	7.5	3.6	1.0	1.8
19	12	21	55	61	167	261	35	15	6.4	4.3	1.0	1.7
20	11	39	53	57	143	217	34	15	6.9	3.6	1.0	1.7
21	9.8	131	51	54	126	190	32	14	9.2	3.2	1.3	1.6
22	9.4	245	111	54	112	164	31	14	8.0	5.6	.92	1.7
23	9.6	147	175	70	102	161	30	14	6.7	4.3	1.3	1.5
24	10	90	138	617	93	148	29	14	5.8	3.7	1.1	1.5
25	9.9	64	110	780	85	135	28	15	5.2	3.3	1.0	1.6
26	14	57	93	651	77	121	27	14	4.5	3.2	.93	1.9
27	32	54	78	419	71	109	26	13	4.1	3.0	.89	2.0
28	25	123	67	449	67	99	25	13	3.8	2.7	.88	2.1
29	40	154	83	331	---	90	25	13	3.7	2.6	.88	2.1
30	213	104	86	261	---	83	28	13	3.5	2.9	.84	2.1
31	128	---	137	238	---	77	---	20	---	2.7	.74	---
TOTAL	730.6	1688	2344	7791	6601	6584	1253	576	238.3	98.9	36.68	49.87
MEAN	23.6	56.3	75.6	251	236	212	41.8	18.6	7.94	3.19	1.18	1.66
MAX	213	245	175	780	1110	798	72	40	15	5.6	2.2	2.1
MIN	8.4	15	38	54	67	63	25	13	3.5	1.8	.74	.69
AC-FT	1450	3350	4650	15450	13090	13060	2490	1140	473	196	73	99
CFSM	.89	2.12	2.84	9.45	8.86	7.98	1.57	.70	.30	.12	.04	.06
IN.	1.02	2.36	3.28	10.90	9.23	9.21	1.75	.81	.33	.14	.05	.07

CAL YR 1986 TOTAL 41592.7 MEAN 114 MAX 2180 MIN 1.4 AC-FT 82500 CFSM 4.28 IN. 58.17
WTR YR 1987 TOTAL 27991.35 MEAN 76.7 MAX 1110 MIN .69 AC-FT 55520 CFSM 2.88 IN. 39.15

14377100 ILLINOIS RIVER NEAR KERBY, OR

LOCATION.--Lat 42°13'55", long 123°39'45", in SE 1/4 SE 1/4 sec.29, T.38 S., R.8 W., Josephine County, Hydrologic Unit 17100311 , Siskiyou National Forest, on right bank 1.6 mi upstream from Josephine Creek, 2.5 mi northwest of Kerby, and at mile 50.3.

DRAINAGE AREA.--380 mi².

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,198.8 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 28, 1965, water-stage recorder, and Jan. 28 to Sept. 30, 1965, nonrecording gage 700 ft downstream at datum 2.99 ft lower.

REMARKS.--No estimated daily discharges. Records good. No regulation. Diversions for irrigation upstream from station. Several observations of water temperature were obtained during the year.

AVERAGE DISCHARGE.--26 years, 1,331 ft³/s, 47.57 in/yr, 964,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,200 ft³/s Dec. 22, 1964, gage height, 45.28 ft, from floodmark, site and datum then in use, from rating curve extended above 30,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 14 ft³/s Aug. 11, 13, 14, 1977, Sept. 10, 11, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Jan. 25	1900	11,100	16.60	Feb. 2	0530	(a)	*21.1
Feb. 2	0530	*17,500	20.89	Mar. 12	1900	11,300	16.79

Minimum discharge, 17 ft³/s Aug. 20, 21, 27, 28.

(a) From outside high-water mark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	362	1170	1160	5970	6360	836	1030	629	222	37	35	22
2	302	867	984	5200	13500	821	1010	604	188	39	34	20
3	263	718	881	5920	6290	1970	991	568	170	36	33	20
4	231	595	817	4070	3880	2220	934	543	153	37	31	22
5	210	504	1010	2660	2930	3220	868	529	137	36	26	21
6	193	441	1280	1990	2340	3260	818	539	137	36	25	22
7	176	415	1080	1600	1980	2450	779	520	130	35	27	24
8	167	415	916	1330	1740	2060	768	502	131	36	25	23
9	161	372	824	1150	1550	2460	763	452	126	36	[illegible]	20
10	154	357	751	1030	1410	2040	758	421	119	40	22	23
11	149	333	679	956	1430	2160	819	392	110	38	20	21
12	143	311	623	991	1370	8370	745	360	99	38	19	21
13	129	296	734	1140	4670	8020	695	348	97	36	20	22
14	129	284	1160	1050	5100	6460	670	322	94	31	20	21
15	128	284	1010	975	4210	4600	663	303	92	31	21	21
16	124	269	891	904	3770	3340	649	289	109	29	22	22
17	159	254	804	849	2900	2850	647	272	95	30	22	22
18	225	250	768	797	2370	3200	660	255	91	32	27	22
19	178	344	850	746	2000	2970	610	240	85	33	[illegible]	23
20	163	425	880	694	1740	2560	572	223	81	31	19	22
21	155	2020	814	642	1570	2230	552	211	80	32	23	22
22	148	3250	1250	623	1400	1980	580	182	89	41	19	22
23	146	2260	2100	776	1300	2010	610	184	80	45	20	21
24	144	1440	1620	5490	1190	1890	580	174	72	45	19	23
25	141	1220	1330	8190	1090	1700	550	188	60	43	20	25
26	139	1010	1170	7150	1000	1540	548	185	63	43	19	24
27	278	1040	1050	4630	935	1330	592	165	57	40	19	24
28	425	1900	940	5220	876	1270	618	167	55	37	18	24
29	443	2140	1130	3610	---	1180	570	163	54	38	23	22
30	2600	1480	1310	2960	---	1100	554	164	47	35	22	23
31	2000	---	1520	2850	---	1050	---	212	---	34	22	---
TOTAL	10365	26664	32336	82163	80901	83207	21203	10306	3128	1130	707	664
MEAN	334	889	1043	2650	2889	2684	707	332	104	36.5	22.8	22.1
MAX	2600	3250	2100	8190	13500	8370	1030	629	222	45	35	25
MIN	124	250	623	623	876	821	548	163	47	29	18	20
AC-FT	20560	52890	64140	163000	160500	165000	42060	20440	6200	2240	1400	1320
CFSM	.88	2.34	2.74	6.97	7.60	7.06	1.86	.87	.27	.10	.06	.06
IN.	1.01	2.61	3.17	8.04	7.92	8.15	2.08	1.01	.31	.11	.07	.07

CAL YR 1986 TOTAL 485753 MEAN 1331 MAX 19900 MIN 17 AC-FT 963500 CFSM 3.50 IN. 47.55
WTR YR 1987 TOTAL 352774 MEAN 967 MAX 13500 MIN 18 AC-FT 699700 CFSM 2.54 IN. 34.53

14400000 CHETCO RIVER NEAR BROOKINGS, OR

LOCATION.--Lat 42°07'25", long 124°11'10", in SE 1/4 sec.12, T.40 S., R.13 W., Curry County, Hydrologic Unit 17100312, on right bank 16 ft upstream from bridge, 0.5 mi upstream from Elk Creek, 5.8 mi northeast of Brookings, and at mile 10.7.

DRAINAGE AREA.--271 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 50 ft, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 30, Nov. 20-23, Nov. 27 to Dec. 1, Dec. 22-25, Dec. 29, Dec. 31 to Jan. 7, Jan. 24 to Feb. 7, Feb. 9, 11, 13-18. Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station. Several measurements of water temperature made during the year.

AVERAGE DISCHARGE.--18 years, 2,364 ft^3/s, 118.46 in/yr, 1,713,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,800 ft^3/s Jan. 16, 1971, gage height, 27.45 ft; minimum discharge, 45 ft^3/s Oct. 21-23, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 32.25 ft, from high-water mark on bridge pier, discharge, 85,400 ft^3/s, from rating curve extended above 45,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 25	unknown	unknown	unknown	Feb. 2	unknown	(a)	*16.39
Feb. 2	unknown	*26,600	15.75				

Minimum discharge, 47 ft^3/s Sept. 4.

(a) From crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	580	2820	4530	17000	10000	1180	1190	724	609	153	93	53
2	486	1950	3430	15000	20000	1210	1120	870	441	152	90	53
3	425	1500	2760	16000	13000	4860	1050	945	372	150	85	53
4	379	1200	2320	10000	7000	3830	978	799	335	152	84	51
5	345	1010	3330	6500	5000	5180	911	677	322	155	81	51
6	318	868	3430	4370	3970	5850	875	602	307	149	78	53
7	295	867	2750	3480	3240	4620	849	549	291	143	74	55
8	275	782	2290	2810	2660	3890	827	507	280	137	72	57
9	260	779	1960	2360	2330	4930	791	472	272	131	72	59
10	245	731	1720	2020	2110	3980	795	446	260	128	73	53
11	233	658	1530	1780	2150	5040	824	427	251	122	73	58
12	224	606	1400	1990	2170	16700	772	411	245	118	72	58
13	216	564	2070	2110	6500	15000	733	405	239	116	70	59
14	208	542	3430	1900	7500	13600	703	388	229	112	69	59
15	202	513	3110	1690	6500	9690	680	377	230	108	69	61
16	196	483	2490	1530	5500	6450	654	364	233	101	68	60
17	225	465	2090	1410	5000	5070	647	350	231	99	66	58
18	254	590	2110	1280	4000	4870	648	338	219	115	63	56
19	219	948	2720	1170	3340	4390	610	327	211	148	63	54
20	201	2110	2800	1080	2800	3720	588	319	214	135	64	55
21	191	5620	2420	996	2410	3220	567	311	246	121	65	54
22	188	10000	4400	943	2110	2760	544	303	229	125	64	54
23	185	5490	6720	1230	1960	3210	522	296	207	125	63	53
24	213	4140	4730	9000	1750	2970	503	290	195	116	63	52
25	206	4110	3730	13000	1590	2580	483	291	186	112	62	52
26	277	3440	3030	11000	1460	2260	460	289	179	110	60	53
27	2240	5280	2600	7500	1330	1980	440	277	171	107	59	52
28	1620	5140	2350	8000	1260	1740	423	272	162	104	58	51
29	1600	4850	4020	6500	---	1550	408	263	160	101	58	57
30	6450	6200	3770	5500	---	1390	416	344	156	99	57	51
31	4550	---	4500	5000	---	1280	---	688	---	96	55	---
TOTAL	23506	74256	94590	164149	118660	149000	21011	13921	7682	3840	2143	1646
MEAN	758	2475	3051	5295	4595	4806	700	449	256	124	69.1	54.9
MAX	6450	10000	6720	17000	20000	16700	1190	945	609	155	93	61
MIN	185	465	1400	943	1260	1180	408	263	156	96	55	51
AC-FT	46620	147300	187600	325600	235200	295500	41680	27610	15240	7620	4250	3260
CFSM	2.80	9.13	11.3	19.5	17.0	17.7	2.58	1.66	.94	.46	.26	.20
IN.	3.23	10.19	12.98	22.53	7.65	20.45	2.88	1.91	1.05	.53	.29	.23

CAL YR 1986 TOTAL 940640 MEAN 2577 MAX 31100 MIN 57 AC-FT 1866000 CFSM 9.51 IN. 129.12
WTR YR 1987 TOTAL 684404 MEAN 1875 MAX 21000 MIN 51 AC-FT 1358000 CFSM 6.92 IN. 93.95

SANDY RIVER BASIN

452650122091801 BULL RUN RESERVOIR NUMBER TWO, OR

LOCATION.--Lat 45°26′55", long 122°08′45", in SE 1/4 SE 1/2 sec.26, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on headworks dam on Bull Run River, 4.4 mi northeast of town of Bull Run, and approximately 20 mi east of Portland.

PERIOD OF RECORD.--June 1980 to September 1981 (event sampling), September 1981 to November 1981 (weekly composite), July 1982 to current year (weekly composite).

INSTRUMENTATION.--A bulk-type plastic double cylinder with receiving funnel directing deposition to inner cylinder was used for the period of record June 1980 to September 1981. The wet-deposition sample collector is an Aerochem Model 301* wet/dry deposition collector. The sensing circuit is activated by wet deposition, causing the motor to move the cover from the wet bucket and cover the dry bucket. When the heater in the sensor evaporates the precipitation, the cycle is reversed. The sample buckets are polyethylene and have a capacity of 13 liters (28.6 cm inside diameter, 23.2 cm deep). The opening of the collector is approximately 5 ft above ground level and has been used for the weekly composite sampling period of record September 1981 to current year.

REMARKS.---Inches of precipitation obtained from an on-site recording weighing-bucket gage. The sample collector is located in the restricted access area of the city of Portland's Bull Run River Watershed.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TOTAL PRECIP- ITATION FOR DEFINED PERIOD (IN)	PRECIP- ITATION TOTAL INCHES/ WEEK	COL- LECTOR EFFI- CIENCY WET DEPOS. PERCENT	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 07-14	0.00	0.00	--	--	--	--	--	--
OCT 14-21	0.31	0.31	95	32	25	4.3	4.5	0.2
OCT 21-28	1.0	1.0	105	6	4	5.0	5.4	0.06
OCT 28-NOV 04	1.15	1.15	93	8	7	5.1	5.2	0.03
NOV 04-11	2.71	2.71	99	16	15	4.9	5.1	0.08
NOV 11-18	2.14	2.14	103	--	--	--	--	--
NOV 18-25	4.04	4.04	103	--	--	--	--	--
NOV 25-DEC 02	3.20	3.20	102	--	--	--	--	--
DEC 02-09	0.38	0.38	84	--	--	--	--	--
DEC 09-16	1.07	1.07	100	--	--	--	--	--
DEC 16-23	0.51	0.51	106	--	--	--	--	--
DEC 23-30	1.34	0.74	102	--	--	--	--	--
DEC 30 1986-JAN 06 1987	2.41	2.41	103	--	--	--	--	--
JAN 06-13	0.87	0.87	104	--	--	--	--	--
JAN 13-20	0.6	0.6	100	--	--	--	--	--
JAN 20-27	2.52	0.37	99	4	4	5.4	5.6	0.07
JAN 27-FEB 03	4.33	0.89	99	3	2	5.4	5.5	0.02
FEB 03-10	0.0	0.0	--	--	14	--	5.9	--
FEB 10-17	2.24	2.24	102	5	4	5.2	5.3	0.02

* The use of the brand name in this report is for identification purposes only and does not imply endorsement by the U.S. Geological Survey.

SANDY RIVER BASIN

452650122091801 BULL RUN RESERVOIR NUMBER TWO, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	PHOSPHATE, DISSOLVED (MG/L AS PO4)
OCT 07-14	--	--	--	--	--	--	--	--
OCT 14-21	0.06	0.15	0.07	1.3	0.3	0.63	3.4	0.01
OCT 21-28	0.02	0.11	0.02	0.22	0.18	0.1	0.26	<0.01
OCT 28-NOV 04	0.07	0.58	0.02	0.33	1.0	<0.02	0.25	<0.01
NOV 04-11	0.18	1.4	0.06	0.78	2.8	0.11	0.4	<0.01
NOV 11-18	--	--	--	--	--	--	--	--
NOV 18-25	--	--	--	--	--	--	--	--
NOV 25-DEC 02	--	--	--	--	--	--	--	--
DEC 02-09	--	--	--	--	--	--	--	--
DEC 09-16	--	--	--	--	--	--	--	--
DEC 16-23	--	--	--	--	--	--	--	--
DEC 23-30	--	--	--	--	--	--	--	--
DEC 30 1986-JAN 06 1987	--	--	--	--	--	--	--	--
JAN 06-13	--	--	--	--	--	--	--	--
JAN 13-20	--	--	--	--	--	--	--	--
JAN 20-27	0.03	0.27	0.01	0.2	0.47	<0.02	0.11	<0.01
JAN 27-FEB 03	0.01	0.07	<0.01	0.14	0.13	<0.02	0.08	<0.01
FEB 03-10	--	--	--	--	--	--	--	--
FEB 10-17	0.02	0.2	0.01	0.19	0.36	<0.02	0.22	<0.01

DATE	TOTAL PRECIPITATION FOR DEFINED PERIOD (IN)	PRECIPITATION TOTAL INCHES/WEEK	COLLECTOR EFFICIENCY WET DEPOS. PERCENT	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	PH LAB (STANDARD UNITS)	CALCIUM DISSOLVED (MG/L AS CA)
FEB 17-24	1.24	1.24	102	20	17	4.8	5.1	0.13
FEB 24-MAR 03	1.82	1.82	105	5	4	5.2	5.4	0.04
MAR 03-10	1.43	0.96	101	4	3	4.9	5.3	0.03
MAR 10-17	2.35	2.35	101	6	4	5.1	5.3	0.04
MAR 17-24	2.35	2.35	103	7	6	5.2	5.3	0.04
MAR 24-31	0.22	0.22	101	20	17	4.8	5.2	0.21
MAR 31-APR 07	1.15	1.15	101	8	6	4.9	5.8	0.11
APR 07-14	2.06	2.06	103	9	8	5.2	5.4	0.06
APR 14-21	1.65	1.65	100	10	8	5.1	5.1	0.07
APR 21-28	0.0	0.0	--	--	--	--	--	--
APR 28-MAY 05	1.19	1.19	101	6	4	4.9	5.4	0.04
MAY 05-12	1.21	1.21	104	4	2	5.2	5.5	0.03
MAY 12-19	0.62	0.62	107	12	10	4.5	4.9	0.08
MAY 19-26	0.0	0.0	--	--	100	--	5.7	--
MAY 26-JUN 02	0.99	0.99	105	7	5	5.0	5.2	0.06
JUN 02-09	0.03	0.03	97	--	22	--	4.7	0.35
JUN 09-16	0.0	0.0	--	--	--	--	--	--
JUN 16-23	0.66	0.66	100	6	5	5.2	5.4	0.03
JUN 23-30	0.0	0.0	--	--	--	--	--	--

SANDY RIVER BASIN

452650122091801 BULL RUN RESERVOIR NUMBER TWO, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	PHOSPHATE, DISSOLVED (MG/L AS PO4)
FEB 17-24	0.21	1.6	0.07	1.1	3.1	0.13	0.52	<0.01
FEB 24-MAR 03	0.02	0.08	0.01	0.26	0.15	0.04	0.23	<0.01
MAR 03-10	0.02	0.07	0.01	0.2	0.15	<0.02	0.17	<0.01
MAR 10-17	0.02	0.14	0.02	0.26	0.25	0.04	0.31	<0.01
MAR 17-24	0.03	0.23	0.02	0.42	0.4	0.14	0.52	<0.01
MAR 24-31	0.15	1.1	0.08	1.5	1.9	0.53	1.8	<0.01
MAR 31-APR 07	0.03	0.23	0.05	0.66	0.3	0.33	0.76	<0.01
APR 07-14	0.09	0.69	0.04	0.49	1.2	0.08	0.23	<0.01
APR 14-21	0.05	0.34	0.02	0.63	0.6	0.07	0.53	<0.01
APR 21-28	--	--	--	--	--	--	--	--
APR 28-MAY 05	0.03	0.16	0.02	0.32	0.28	<0.02	0.36	<0.01
MAY 05-12	0.01	0.02	0.01	0.17	0.05	<0.02	0.16	<0.01
MAY 12-19	0.05	0.37	0.03	0.81	0.67	0.22	1.0	<0.01
MAY 19-26	--	--	--	--	--	--	--	--
MAY 26-JUN 02	0.03	0.15	0.02	0.35	0.29	<0.02	0.44	<0.01
JUN 02-09	0.08	0.33	0.1	1.8	0.46	0.44	3.4	0.13
JUN 09-16	--	--	--	--	--	--	--	--
JUN 16-23	0.03	0.37	0.02	0.33	0.48	0.12	0.45	<0.02
JUN 23-30	--	--	--	--	--	--	--	--

DATE	TOTAL PRECIPITATION FOR DEFINED PERIOD (IN)	PRECIPITATION TOTAL INCHES/WEEK	COLLECTOR EFFICIENCY WET DEPOS. PERCENT	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH (STANDARD UNITS)	PH LAB (STANDARD UNITS)	CALCIUM DISSOLVED (MG/L AS CA)
JUN 30-JUL 07	0.39	0.39	97	6	5	5.2	5.6	0.04
JUL 07-14	0.11	0.11	96	18	15	4.5	4.8	0.10
JUL 14-21	0.9	0.9	104	16	13	4.6	4.7	0.06
JUL 21-28	0.02	0.02	217	49	48	4.1	4.1	0.32
JUL 28-AUG 04	0.0	0.0	--	--	--	--	--	--
AUG 04-11	0.0	0.0	--	--	--	--	--	--
AUG 11-18	0.81	0.81	54	13	12	4.7	4.8	0.03
AUG 18-25	0.0	0.0	--	--	--	--	--	--
AUG 25-SEP 01	0.0	0.0	--	--	--	--	--	--
SEP 01-08	0.0	0.0	--	--	--	--	--	--
SEP 08-15	0.75	0.75	94	22	16	4.4	4.7	0.05
SEP 15-22	0.09	0.09	120	23	20	4.7	5.1	0.13
SEP 22-29	0.9	0.01	102	8	6	4.9	5.2	0.04
SEP 29-OCT 06	0.0	0.0	--	--	--	--	--	--

SANDY RIVER BASIN

452650122091801 BULL RUN RESERVOIR NUMBER TWO, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	PHOSPHATE, DISSOLVED (MG/L AS PO4)
JUN 30-JUL 07	0.02	0.10	0.02	0.4	0.18	0.29	0.52	<0.02
JUL 07-14	0.03	0.21	0.03	1.2	0.26	0.28	1.9	<0.02
JUL 14-21	0.03	0.24	0.03	0.9	0.3	0.17	1.3	<0.02
JUL 21-28	0.09	0.53	0.09	4.2	0.64	0.46	4.5	0.43
JUL 28-AUG 04	--	--	--	--	--	--	--	--
AUG 04-11	--	--	--	--	--	--	--	--
AUG 11-18	0.02	0.16	0.09	1.2	0.31	0.25	0.68	<0.02
AUG 18-25	--	--	--	--	--	--	--	--
AUG 25-SEP 01	--	--	--	--	--	--	--	--
SEP 01-08	--	--	--	--	--	--	--	--
SEP 08-15	0.06	0.5	0.15	0.9	1.1	0.25	1.1	<0.02
SEP 15-22	0.21	1.9	0.08	1.3	3.0	0.23	1.3	<0.02
SEP 22-29	0.01	0.11	0.03	0.5	0.18	0.18	0.63	<0.02
SEP 29-OCT 06	--	--	--	--	--	--	--	--

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station no.	Station name	Location	Drainage area (mi²)	Period of record	Date	Annual maximum Gage height (ft)	Annual maximum Discharge (ft³/s)
		Sandy River basin					
14138950	Deer Creek near Bull Run, OR	Lat 45°29'31", long 122°03'27", in SE 1/4 SW 1/4 sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.6 mi northeast of Bull Run.	1.62	1978-87	1-31-87	3.87	164
14138960	Cougar Creek near Bull Run, OR	Lat 45°29'28", long 122°03'40", in SW 1/4 SW 1/4 sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.4 mi northeast of Bull Run.	3.06	1978-87	1-31-87	3.04	237
14138990	Bear Creek near Bull Run, OR	Lat 45°29'18", long 122°04'58", in NW 1/4 NW 1/4 sec.16, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 400 ft upstream from Bull Run Reservoir Number One, and 8.3 mi northeast of Bull Run.	1.68	1978-87	1-31-87	(a)	---
14139510	Fivemile Creek near Bull Run, OR	Lat 45°28'57", long 122°05'25", in SW 1/4 NE 1/4 sec.17, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 800 ft upstream from Bull Run Reservoir Number Two, and 7.9 mi northeast of Bull Run.	.79	1978-87	1-31-87	(a)	---
14139600	Camp Creek near Bull Run, OR	Lat 45°27'41", long 122°06'13", in SW 1/4 SW 1/4 sec.20, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, 15 ft downstream from falls at confluence with West Branch of Camp Creek, 0.3 mi upstream from Bull Run Reservoir Number Two, and 6.6 mi northeast of Bull Run.	3.27	1978-87	1-31-87	(a)	---

(a) No marks recorded; discharge not determined.

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements at miscellaneous sites during water year 1987

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)	Specific conductance (us/cm)
		SANDY RIVER BASIN					
14138950 Deer Creek	Bull Run River	Lat 45°29'31", long 122°03'27", in SE 1/4 SW 1/4 sec.10, T.1 S., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.6 mi northeast of Bull Run.	1.62	1978-86	10-21-86 12-30-86 4- 7-87 6-12-87 8- 4-87 9- 8-87	1.2 8.4 5.6 1.7 *0.55 *0.40	--- --- --- --- --- ---
14138960 Cougar Creek	.....do.....	Lat 45°29'28", long 122°03'40", in SW 1/4 SW 1/4 sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service Road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.4 mi northeast of Bull Run.	3.06	1978-86	10-21-86 12-30-86 4- 8-87 6-12-87 8- 4-87 9- 8-87	3.4 15 16 4.9 *1.2 *0.76	--- --- --- --- --- ---
14138990 Bear Creek	.....do.....	Lat 45°29'18", long 122°04'58", in NW 1/4 NW 1/4 sec.16, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service Road S10, 400 ft upstream from Bull Run Reservoir Number One, and 8.3 mi northeast of Bull Run.	1.68	1978-86	10-21-86 12-30-86 4- 8-87 6-12-87 8 -5-87 9 -8-87	0.74 5.3 4.7 1.4 *0.36 *0.21	--- --- --- --- --- ---
14139510 Fivemile Creek	.....do.....	Lat 45°28'57", long 122°05'25", in SW 1/4 NE 1/4 sec.17, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service Road S10, 800 ft from Bull Run Reservoir Number Two, and 7.9 mi northeast of Bull Run.	0.79	1978-86	10-21-86 12-30-86 4- 8-87 6-12-87 8- 5-87 9- 8-87	0.3 2.5 1.4 0.59 *0.16 *0.07	--- --- --- --- --- ---
14139600 Camp Creek	.....do.....	Lat 45°27'41", long 122°06'13", in SW 1/4 SW 1/4 sec.20, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, 15 ft downstream from falls at confluence with West Branch of Camp Creek, 0.3 mi upstream from Bull Run Reservoir Number Two, and 6.6 mi northeast of Bull Run.	3.27	1978-86	12- 4-86 9- 1-87	21 *0.61	--- ---
Sandy River	Columbia River	Lat 45°24'14", long 122°13'48", in SE 1/4 SE 1/4 sec.7, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, near Sandy.	---	---	9-24-87	*218	---
Bull Run River	Sandy River	Lat 45°26'42", long 122°14'49", in SW 1/4 SW 1/4 sec.31, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, upstream from Sandy River, at Dodge Park.	---	---	9-24-87	*7.2	---
Walker Creek	.....do.....	Lat 45°27'07", long 122°14'28", in NW 1/4 SW 1/4 sec.30, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, at confluence with Sandy River.	---	---	9-24-87	*2.2	---
Unnamed right bank tributary	.....do.....	Lat 45°27'18", long 122°14'46", in SW 1/4 NE 1/4 sec.30, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, downstream from Walker Creek, near confluence with Sandy River.	---	---	9-24-87	*0.20	---

* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)	Specific conductance (us/cm)
		SANDY RIVER BASIN--Continued					
Unnamed right bank tributary and springs	Sandy River	Lat 45°27'22", long 122°15'07", in SE 1/4 NE 1/4 sec.25, T.1 S., R.4 E., Multnomah County, Hydrologic Unit 17080001, near confluence with Sandy River.	---	---	9-24-87	*2.0	---
Unnamed right bank tributary off cliff	.....do.....	Lat 45°27'47", long 122°15'50", in SE 1/4 SW 1/4 sec.24, T.1 S., R.4 E., Multnomah County, Hydrologic Unit 17080001, near confluence with Sandy River.	---	---	9-24-87	*0.37	---
Unnamed right bank tributary	.....do.....	Lat 45°28'01", long 122°16'23", in NW 1/4 SE 1/4 sec.23, T.1 S., R.4 E., Multnomah County, Hydrologic Unit 17080001, near confluence with Sandy River.	---	---	9-24-87	*0.10	---
Unnamed left bank springs	.....do.....	Lat 45°28'04", long 122°16'41", in SW 1/4 NE 1/4 sec.23, T.1 S., R.4 E., Multnomah County, Hydrologic Unit 17080001, near confluence with Sandy River.	---	---	9-24-87	*0.22	---
Sandy River	Columbia River	Lat 45°29'20", long 122°17'06", in NE 1/4 NW 1/4 sec.14, T.1 S., R.4 E., Multnomah County, Hydrologic Unit 17080001, at Oxbow Park.	---	---	9-27-87	274	---
Trout Creek	Sandy River	Lat 45°28'55", long 122°16'37", in NW 1/4 SE 1/4 sec.14, T.1 S., R.4 E., Multnomah County, Hydrologic Unit 17080001, at Gordon Creek Road, near confluence with Sandy River.	---	---	9-28-87	*3.8	---
Gordon Creek	.....do.....	Lat 45°29'35", long 122°16'30", in SW 1/4 SE 1/4 sec.11, T.1 S., R.4 E., Multnomah County, Hydrologic Unit 17080001, at Gordon Creek Road, near confluence with Sandy River.	---	---	9-28-87	*8.9	---
Sandy River	Columbia River	Lat 45°32'58", long 122°21'36", in NW 1/4 NE 1/4 sec.6, T.1 S., R.4 E., Multnomah County, Hydrologic Unit 17080001, at Stark Street.	---	---	9-23-87	[illegible]	---
Sandy River	.....do.....	Lat 45°32'17", long 122°22'30", in NE 1/4 SE 1/4 sec.25, T.1 N., R.3 E., Multnomah County, Hydrologic Unit 17080001, near confluence with Columbia River.	---	---	9-24-87	[illegible]	---
Beaver Creek	Sandy River	Lat 45°30'36", long 122°23'20", in NE 1/4 SW 1/4 sec.1, T.1 S., R.3 E., Multnomah County, Hydrologic Unit 17080001, at Cochran Road.	---	---	9-28-87	*2.12	---
Kelly Creek	Beaver Creek	Lat 45°30'50", long 122°23'38", in SE 1/4 NE 1/4 sec.2, T.1 S., R.3 E., Multnoman County, Hydrologic Unit 17080001, at Mt. Hood Community College, near confluence with Beaver Creek.	---	---	9-28-87	*0.33	---
Beaver Creek	Sandy River	Lat 45°31'23", long 122°23'06", in SE 1/4 SW 1/4 sec.36, T.1 N., R.3 E., Multnomah County, Hydrologic Unit 17080001, at Troutdale Road.	---	---	9-28-87	*1.0	---

* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)	Specific conductance (us/cm)
		SANDY RIVER BASIN--Continued					
Beaver Creek	Sandy River	Lat 45°32'13", long 122°22'41", in NE 1/4 SW 1/4 sec.25, T.1 N., R.3 E., Multnomah County, Hydrologic Unit 17080001, at Columbia River Highway, near Troutdale.	---	---	9-28-87	*0.71	---
		WILLAMETTE RIVER BASIN					
Mosby Creek	Row River	Lat 43°46'10", long 122°59'40", in NW 1/4 SE 1/4 sec.1, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, 0.5 mi upstream from discontinued U.S. Geological Survey gaging station Mosby Creek at mouth, near Cottage Grove (14156500).	---	---	9-14-87	*6.8	---
14156500 Mosby Creek	.....do.....	Lat 43°46'35", long 122°59'55", in SE 1/4 NW 1/4 sec.1, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, on left bank, 3.5 mi southeast of Cottage Grove, and at mile 1.0.	95.3	1946-81‡	9- 8-87	*4.3	113
14144900 Hills Creek above Hills Creek Lake near Oakridge	Middle Fork Willamette River	Lat 43°40'50", long 122°22'10", in NW 1/4 NW 1/4 sec.8, T.22 S., R.4 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 0.2 mi downstream from Tufti Creek, 0.7 mi upstream from Hills Creek Lake, 6.5 mi southeast of Oakridge, and at mile 4.1.	52.7	1959-81‡	8-27-87	*24	---
14146000 Salt Creek near Oakridge	Middle Fork Willamette River	Lat 43°43'45", long 122°25'35", SW 1/4 sec.23, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, on right bank 0.7 mi upstream from mouth, 0.4 mi west of Highway 58 bridge at turnout in highway, and 2.0 mi southeast of Oakridge.	113	1913-14‡, 1933-51‡, 1977,1984, 1985	8-26-87	*103	---
14146700 Gray Creek near Oakridge	.....do.....	Lat 43°43'48", long 122°30'38", in NE 1/4 SE 1/4 sec.24, T.21 S., R.2 E., Lane County, Hydrologic Unit 17090001, Willamette National Forest, on left bank 0.9 mi upstream from La Duke Road bridge., and 1.5 mi southwest of Oakridge.	5.06	1978-86‡	8-27-87	*0.59	---
Little Fall Creek	Fall Creek	Lat 43°58'10", long 122°45'20", in S 1/2 sec.25, T.18 S., R.1 W., Lane County, Hydrologic Unit 17090001, 4 mi east of Fall Creek Post Office, and 4.5 mi upstream from mouth.	52.5	1936-49‡, 1977	8-28-87	*10	---
Separation Creek	Horse Creek	Lat 44°07'29", long 122°02'08", in sec.1, T.17 S., R.16 W., Lane County, Hydrologic Unit 17090004, 0.25 mi upstream from confluence with Horse Creek.	63.0	1973, 1977, 1981-82	8-26-87	258	---
14159100 Horse Creek near McKenzie Bridge	McKenzie River	Lat 44°09'45", long 122°09'05", in SW 1/4 sec.24, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, Willamette National Forest, on right bank 450 ft upstream from bridge on Horse Creek road, 1.0 mile southeast of McKenzie Bridge, and at mile 3.4.	149	1962-69‡, 1977	8-26-87	264	---

‡ Operated as a continuous-record gaging station.
* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)	Specific conductance (us/cm)
		WILLAMETTE RIVER BASIN--Continued					
French Pete Creek	South Fork McKenzie River	Lat 44°02'32", long 122°11'40", (unsurveyed), Lane County, Hydrologic Unit 17090004.	31.2	1970-78	8-25-87	14	46
Quartz Creek	McKenzie River	SE 1/4 NW 1/4 sec.6, T.17 S., R.4 E., Lane County, Hydrologic Unit 17090004, at bridge 0.25 mi upstream from mouth, and 0.5 mi southeast of Finn Rock.	41.9	1965, 1973, 1977,	8-25-87	12	47
14169500 Amazon Creek near Eugene	Long Tom River	Lat 44°02'57", long 123°10'34", in SW 1/4 NE 1/4 sec.33, T.17 S., R.4 W., Lane County, Hydrologic Unit 17090003, 200 ft upstream from Danebo Avenue bridge.	a21	1955-68‡, 1980-82‡	9-24-87	*1.1	---
North Fork Rock Creek	Rock Creek	NE 1/4 sec.14, T.12 S., R.7 W., Benton County, Hydrologic Unit 17090003.	---	1973, 1975-80,	8-26-87	*1.3	97
South Fork Rock Creek	.....do.....	SE 1/4 sec.14, T.12 S., R.7 W., Benton County, Hydrologic Unit 17090003.	---	1973, 1975-80	8-26-87	*2.2	---
Stilson Creek	.....do.....	SE 1/4 sec.13, T.12 S., R.7 W., Benton County, Hydrologic Unit 17090003.	---	1973, 1975-80	8-25-87	*0.14	154
Middle Fork Rock Creek	.....do.....	SE 1/4 sec.19, T.12 S., R.6 W., Benton County, Hydrologic Unit 17090003.	---	1973, 1975-80	8-25-87	*0.23	142
Griffith Creek	.....do.....	SE 1/4 NW 1/4, sec.30, T.12 S., R.6 W., Benton County, Hydrologic Unit 17090003.	---	1973, 1975-80	8-25-87	*0.47	91
14172500 Rock Creek near Philomath	Greasy Creek	Lat 44°30'05", long 123°26'20", in SW 1/4 NE 1/4 sec.29, T.12 S., R.6 W., Benton County, Hydrologic Unit 17090003, on left bank 600 ft upstream from bridge on State Highway 34, 4.5 mi southwest of Philomath, and at mile 0.4.	14.6	1946-52‡, 1953-60, 1973, 1975-79‡	8-25-87	*163	143
14171000 Marys River near Philomath	Willamette River	Lat 44°31'35", long 123°20'00", in NE 1/4 SE 1/4 sec.18, T.12 S., R.5 W., Benton County, Hydrologic Unit 17090003, on left bank 50 ft downstream from bridge on Bellfountain Road, 0.6 mi downstream from Newton Creek, 2.0 mi southeast of Pilomath, and at mile 9.4.	159	1941-85‡	8-26-87	*10	126
14173500 Calapooia River at Albany	.....do.....	Lat 44°37'15", long 123°07'40", in NW 1/4 sec.13, T.11 S., R.4 W., Linn County, Hydrologic Unit 17090003, near right bank on downstream side of bridge on Riverside Drive at Albany, 0.6 mi downstream from Oak Creek, and at mile 3.0.	372	1941-81‡	8-25-87	*38	---
14185800 Middle Santiam River near Cascadia	Santiam River	Lat 44°30'55", long 122°22'15", in NE 1/4 sec.19, T.12 S., R.4 E., Linn County, Hydrologic Unit 17090006, on right bank 5.6 mi downstream from Bear Creek, 10 mi northeast of Cascadia, and at mile 17.5.	104	1963-81‡	8-27-87	*50	---

‡ Operated as a continuous-record gaging station.
* Base flow.
a Approximately.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements		Specific conductance (us/cm)
					Date	Discharge (ft^3/s)	
		WILLAMETTE RIVER BASIN--Continued					
Lebanon Ditch	South Santiam River	Lat 44°31'42", long 122°53'57", Linn County, Hydrologic Unit 17090006, at Lebanon.	---	1986	10- 9-86	166	---
Little North Santiam River	North Santiam River	SW 1/4 NW 1/4 sec.22, T.8 S., R.4 E., Marion County, Hydrologic Unit 17090005.	53.1	1973-78	8-28-87	*14	---
Marion Forks Creek	.....do.....	SE 1/4 NW 1/4 sec.22, T.11 S., R.7 E., Marion County, Hydrologic Unit 17090005.	---	1973, 1977	8-27-87	*132	---
North Fork Breitenbush River	Breitenbush River	NW 1/4 sec.25, T.9 S., R.8 E., Marion County, Hydrologic Unit 17090005.	---	1973, 1977	8-28-87	*0.03	---
Rock Creek	South Yamhill River	NE 1/4 SE 1/4 sec.14, T.6 S., R.8 W., Polk County, Hydrologic Unit 17090008.	---	1977	9- 1-87	*4.0	---
Coast Creek	Willamina Creek	NE 1/4 NW 1/4 sec.12, T.5 S., R.7 W., Yamhill County, Hydrologic Unit 17090008.	---	1977	9- 1-87	*3.2	---
14201500 Butte Creek at Monitor	Pudding River	Lat 45°06'06", long 122°44'42", in SE 1/4 SE 1/4 sec.25, T.5 S., R.1 W., Marion County, Hydrologic Unit 17090009, on left bank at downstream side of highway bridge at Monitor, and at mile 7.7.	58.7	1936‡, 1941-52‡, 1967-85‡	8-28-87	*1.8	---
14204500 Gales Creek near Forest Grove	Tualatin River	Lat 45°33'20", long 123°11'10", in SE 1/4 sec.21, T.1 N., R.4 W., Washington County Hydrologic Unit 17090010, on left bank approximately 50 ft downstream from Roderick Road bridge, 0.1 mi below Kelly Creek, 2.5 mi southeast of town of Gales Creek, 4.5 mi northwest of Forest Grove, and at mile 8.7.	66.1	1941-56‡, 1971-81‡	8-31-87	*7.2	---
East Fork Dairy Creek	Dairy Creek	Lat 45°34'44", long 123°04'11", in SW 1/4 SW 1/4 sec.9, T.1 N., R.3 W., Washington County, Hydrologic Unit 17090010, at Washington County bridge (no. 1320), near Roy.	65.5	1967, 1973-76, 1977	8-31-87	*7.3	---
Rock Creek	Tualatin River	Lat 45°01'01", long 122°56'00", in SE 1/4 SE 1/4 sec.4, T.1 S., R.2 W., Washington County, Hydrologic Unit 17090010, at Brookwood Avenue bridge, near Hillsboro.	74.0	1973-76, 1977	8-31-87	*5.3	---
Fanno Creek	.....do.....	Lat 45°24'14", long 122°45'14", in NE 1/4 NW 1/4 sec.13, T.2 S., R.1 W., Washington County, Hydrologic Unit 17090010, at Durham Road bridge, near Durham.	31.5	1967, 1973-76, 1977	8-28-87	*4.7	---
14211000 Clackamas River near Clackamas	Willamette River	Lat 45°23'36", long 122°31'54", in NE 1/4 SW 1/4 sec.14, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090011, on left bank 0.8 mi upstream from Johnson Creek, 2.1 mi southeast of Clackamas, and at mile 4.8.	930	1912‡, 1963-83‡	8-26-87	*796	71

‡ Operated as a continuous-record gaging station.
* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)	Specific conductance (us/cm)
		WILLAMETTE RIVER BASIN--Continued					
Johnson Creek	Willamette River	Lat 45°28'23" long 122°24'07", in NW 1/4 NE 1/4 sec.23, T.1 S., R.3 E., Multnomah County, Hydrologic Unit 17090012, at Palmblad Road.	---	---	9-30-87	*0.22	---
Johnson Creek	.....do.....	Lat 45°29'42", long 122°26'02", in NE 1/4 SE 1/4 sec.9, T.1 S., R.3 E., Multnomah County, Hydrologic Unit 17090012, at Walters Road.	---	---	9-30-87	*0.70	---
Johnson Creek	.....do.....	Lat 45°29'17", long 122°28'01", in NE 1/4 NW 1/4 sec.17, T.1 S., R.3 E., Multnomah County, Hydrologic Unit 17090012, at Southeast 190th Avenue.	---	---	9-29-87	*0.67	---
Johnson Creek	.....do.....	Lat 45°28'26", long 122°32'49", in NE 1/4 NW 1/4 sec.22, T.1 S., R.2 E., Multnomah County, Hydrologic Unit 17090012, at Southeast 112th and Brookside.	---	---	9-29-87	*0.77	---
Johnson Creek	.....do.....	Lat 45°27'50", long 122°34'37", in SW 1/4 SW 1/4 sec.21, T.1 S., R.2 E., Multnomah County, Hydrologic Unit 17090012, at 82nd Avenue.	---	---	9-29-87	*0.74	---
Johnson Creek	.....do.....	Lat 45°27'45", long 122°37'23", in SE 1/4 SE 1/4 sec.24, T.1 S., R.2 E., Multnomah County, Hydrologic Unit 17090012, at Tidemar Johnson Park.	---	---	9-29-87	*3.5	---
Crystal Springs Creek	Johnson Creek	Lat 45°28'44", long 122°38'18", in SW 1/4 SW 1/4 sec.13, T.1 S., R.1 E., Multnomah County, Hydrologic Unit 17090012.	---	1977	8-26-87	*15	210
Crystal Springs Creek	.....do.....	Lat 45°27'40", long 122°38'28", in NE 1/4 NE 1/4 sec.26, T.1 S., R.1 E., Clackamas County, Hydrologic Unit 17090012, at Sherrett Street, near confluence with Johnson Creek.	---	---	9-29-87	*13	---
Johnson Creek	Willamette River	Lat 45°26'49", long 122°38'31", in NE 1/4 NE 1/4 sec.35, T.1 S., R.1 E., Clackamas County, Hydrologic Unit 17090012, at Southeast River Road.	---	---	9-29-87	*23	---
Unnamed spring	Columbia River	Lat 45°32'27", long 122°23'34", in SE 1/4 NE 1/4 sec.26 T.1 N., R.3 E., Multnomah County, Hydrologic Unit 17090012, near Troutdale.	---	1977	8-26-87	0.24	164
		TRASK RIVER BASIN					
South Fork Trask River	Trask River	SE 1/4 SE 1/4 sec.1, T.2 S., R.8 W., Tillamook County, Hydrologic Unit 17100203, near Tillamook.	---	1977	9- 1-87	*9.7	---
North Fork Trask River	.....do.....	SE 1/4 SE 1/4 sec.25, T.1 S., R.8 W., Tillamook County, Hydrologic Unit 17100203, near Tillamook.	---	1977	9- 1-87	*30	---

* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)	Specific conductance (us/cm)
		TRASK RIVER BASIN--Continued					
14302500 Trask River near Tillamook	Pacific Ocean	Lat 45°26'25", long 123°43'00", in NW 1/4 NW 1/4 sec.31, T.1 S., R.8 W., Tillamook County, Hydrologic Unit 17100203, on right bank 0.6 mi upstream from Gold Creek, 6.2 mi east of Tillamook, and at mile 10.4.	145	1931-55‡, 1962-72‡, 1973, 1977	9- 1-87	*69	---
		SALMON RIVER BASIN					
Salmon River	Pacific Ocean	NE 1/4 SW 1/4 sec.29, T.6 S., R.10 W., Lincoln County, Hydrologic Unit 17100204.	60.4	1931-32, 1934-37, 1949, 1951-52, 1973, 1977	8-27-87	*32	---
		SILETZ RIVER BASIN					
Euchre Creek	Siletz River	Lat 44°46'50", long 123°54'20", in NW 1/4 NW 1/4 sec.22, T.9 S., R.10 W., Lincoln County, Hydrologic Unit 17100204, approximately 0.25 mi upstream from mouth, and 4 mi north of Siletz.	13.4	1924, 1926, 1973, 1977	8-26-87	*6.9	---
		NORTH-MID COAST BASIN					
Fogarty Creek	Pacific Ocean	NE 1/4 NE 1/4 sec.32, T.8 S., R.11 W., Lincoln County, Hydrologic Unit 17100204.	5.20	1973, 1977	8-27-87	*1.1	---
South Depoe Bay Creek	.....do.....	SW 1/4 NE 1/4 sec.6, T.9 S., R.11 W., Lincoln County, Hydrologic Unit 17100204.	3.98	1936, 1973, 1977	8-27-87	*0.25	---
Rocky Creek	.....do.....	SW 1/4 NE 1/4 sec.19, T.9 S., R.11 W., Lincoln County, Hydrologic Unit 17100204.	5.36	1934, 1936-37, 1949, 1952-57, 1973-74, 1977	8-27-87	*1.3	---
Spencer Creek	.....do.....	NW 1/4 SW 1/4 sec.4, T.10 S., R.11 W., Lincoln County, Hydrologic Unit 17100204.	5.51	1934, 1936-37, 1973, 1977	8-27-87	*1.6	---
Moloch Creek	.....do.....	NW 1/4 SE 1/4 sec.17, T.10 S., R.11 W., Lincoln County, Hydrologic Unit 17100204.	2.23	1934, 1936-37, 1973, 1977	8-27-87	*0.74	---
Elk Creek	Yaquina River	SE 1/4 NW 1/4 sec.24, T.11 S., R.10 W., Lincoln County, Hydrologic Unit 17100204, approximately 0.2 mi downstream from highway bridge.	85.0	1932, 1951-52, 1973, 1977	8-26-87	*8.9	---
Theil Creek	Pacific Ocean	NW 1/4 NE 1/4 sec.6, T.12 S., R.11 W., Lincoln County, Hydrologic Unit 17100205.	4.10	1937, 1973, 1977	8-25-87	*1.2	119
North Fork Beaver Creek	Beaver Creek	NW 1/4 SW 1/4 sec.22, T.12 S., R.11 W., Lincoln County, Hydrologic Unit 17100205, upstream from confluence with Elkhorn Creek.	14.3	1973, 1977	8-26-87	*4.3	---
		ALSEA RIVER BASIN					
14306300 Fall Creek near Alsea	Alsea River	Lat 44°23'50", long 123°44'50", in S 1/2 NE 1/4 sec.35, T.13 S., R.9 W., Lincoln County, Hydrologic Unit 17100205, on left bank 2.0 mi upstream from mouth, and 8.0 mi west of Alsea.	29.4	1958-63‡, 1973, 1977	8-25-87	*9.1	70

‡ Operated as a continuous-record gaging station.
* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements		Specific conductance (us/cm)
					Date	Discharge (ft³/s)	
		ALSEA RIVER BASIN--Continued					
14306600 Drift Creek near Salado	Alsea River	Lat 44°30′50", long 123°50′50", in NE 1/4 sec.24, T.12 S., R.10 W., Lincoln County, Hydrologic Unit 17100205, Siuslaw National Forest, on right bank 0.2 mi downstream from Cape Horn Creek, 4.1 mi southwest of Salado, 8.5 mi southeast of Toledo, and at mile 21.8.	20.5	1959-63‡, 1965-70‡ 1977	8-26-87	*5.7	---
14306700 Needle Branch near Salado	Drift Creek	Lat 44°30′35", long 123°51′20", in SW 1/4 sec.24, T.12 S., R.10 W., Lincoln County, Hydrologic Unit 17100205, on right bank 500 ft upstream from mouth, 4.6 mi west of Salado, and 8.5 mi southeast of Toledo.	0.27	1959-73‡, 1977	8-26-87	no flow	46
14306800 Flynn Creek near Salado	Meadow Creek	Lat 44°32′20", long 123°51′05", in SW 1/4 sec.12, T.12 S., R.10 W., Lincoln County, Hydrologic Unit 17100205, on right bank 1,000 ft upstream from mouth, 3.4 mi west of Salado, and 6.9 mi southeast of Toledo.	0.78	1959-73‡, 1977	8-26-87	*0.24	---
14306810 Deer Creek near Salado	Horse Creek	Lat 44°32′05", long 123°52′35", in SW 1/4 sec.11, T.12 S., R.10 W., Lincoln County, Hydrologic Unit 17100205, Siuslaw National Forest, on right bank 1,000 ft upstream from mouth, 4.6 mi west of Salado, and 6.5 mi southeast of Toledo.	1.17	1959-73‡, 1977	8-26-87	*0.44	---
		CAPE CREEK BASIN					
Cape Creek	Pacific Ocean	SW 1/4 SW 1/4 sec.2, T.15 S., R.12 W., Lane County, Hydrologic Unit 17100205.	---	1977	8-25-87	*0.58	96
		BIG CREEK BASIN					
Big Creek	.....do.....	SW 1/4 sec.15, T.16 S., R.12 W., Lane County, Hydrologic Unit 17100205.	---	1977	8-25-87	*9.0	64
		SIUSLAW RIVER BASIN					
14306920 Siuslaw River near Lorane	Pacific Ocean	Lat 43°51′15", long 123°21′58", in SW 1/4 SW 1/4 sec.1, T.20 S., R.6 W., Lane County, Hydrologic Unit 17100206, 50 ft upstream from road bridge, and upstream from Doe Creek.	a82	1968-75, 1977	9-15-87	*5.7	---
14306940 Siuslaw River at Alma	.....do.....	Lat 43°52′55", long 123°29′30", in NW 1/4 NE 1/4 sec.35, T.19 S., R.7 W., Lane County, Hydrologic Unit 17100206, at road bridge, upstream from Haight Creek.	120	1968-75, 1977	9- 9-87	*7.9	---
14306960 Esmond Creek near Austa	Siuslaw River	Lat 43°54′55", long 123°38′40", in SW 1/4 NE 1/4 sec.16, T.19 S., R.8 W., Douglas County, Hydrologic Unit 17100206, 40 ft downstream from road bridge.	15.6	1968-75, 1977	9- 9-87	*0.61	---
14306980 Wolf Creek near Austa	.....do.....	Lat 43°57′42", long 123°37′12", in SW 1/4 SE 1/4 sec.35, T.18 S., R.18 W., Lane County, Hydrologic Unit 17100206, 50 ft upstream from highway bridge, near confluence with Siuslaw River.	a59	1968-75, 1977	9- 9-87	*7.8	---

‡ Operated as a continuous-record gaging station.
* Base flow.
a Approximately.

Discharge measurements at miscellaneous sites during water year 1987--Continued

SIUSLAW RIVER BASIN--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements		Specific conductance (us/cm)
					Date	Discharge (ft^3/s)	
14307020 Chickahominy Creek near Walton	Wildcat Creek	Lat 44°02'25", long 123°35'02", in NE 1/4 NW 1/4 sec.6, T.18 S., R.7 W., Lane County, Hydrologic Unit 17100206, 20 ft upstream from road bridge.	12.5	1968-75, 1977	9-11-87	*1.9	---
14307050 Wildcat Creek near Austa	Siuslaw River	Lat 44°00'15", long 123°39'12", in NE 1/4 SE 1/4 sec.16, T.18 S., R.8 W., Lane County, Hydrologic Unit 17100206, 75 ft upstream from road bridge.	a52	1968-75, 1977	9-11-87	*9.7	---
Siuslaw River	Pacific Ocean	Lat 44°00'05", long 123°39'15", in SE 1/4 SE 1/4 sec 16, T.18 S., R.8 W., Lane County, Hydrologic Unit 17100206, 600 ft upstream from railroad bridge, at confluence with Wildcat Creek.	267	1932-41‡, 1977	9- 9-87	*50	---
14307500 Lake Creek at Triangle Lake	Siuslaw River	Lat 44°09'45", long 123°34'15", in NW 1/4 SW 1/4 sec.20, T.16 S., R.7 W., Lane County, Hydrologic Unit 17100206, on right bank, approximately 500 ft downstream from outlet of Triangle Lake, and 3.0 mi southwest of Blachly.	52.5	1932-55‡, 1968-75, 1977	9- 8-87	*2.9	---
14307570 Deadwood Creek near Deadwood	Lake Creek	Lat 44°06'38", long 123°45'05", in SE 1/4 NE 1/4 sec.10, T.17 S., R.9 W., Lane County, Hydrologic Unit 17100206, near confluence with Lake Creek.	57.4	1968-75, 1977	9-8-87	*8.9	---
14307600 Indian Creek near Rainrock	.....do.....	Lat 44°06'55", long 123°50'45", in SW 1/4 SW 1/4 sec.1, T.17 S., R.10 W., Lane County, Hydrologic Unit 17100206.	37.0	1968-75, 1977	9- 8-87	*15	---
14307625 Knowles Creek near Mapleton	Siuslaw River	Lat 44°01'40", long 123°50'05", in NW 1/4 NE 1/4 sec.12, T.18 S., R.10 W., Lane County, Hydrologic Unit 17100206, 300 ft upstream from road bridge, near Mapleton.	a18	1968-75, 1977	9-11-87	*0.39	---
14307630 Sweet Creek near Beck	.....do.....	Lat 43°59'10", long 123°54'07", in SE 1/4 SW 1/4 sec.21, T.18 S., R.10 W., Lane County, Hydrologic Unit 17100206, 20 ft upstream from road bridge.	a20	1968-75, 1977	9-11-87	*2.8	---
North Fork Siuslaw River	.....do.....	Lat 44°02'50", long 121°00'09", in NW 1/4 SW 1/4 sec.34, T.17 S., R.11 W., Lane County, Hydrologic Unit 17100206, 20 ft upstream from road bridge, near Minerva.	41.2	1968-85‡	9-11-87	*17	---
14307648 Condon Creek near Minerva	North Fork Siuslaw River	Lat 44°02'55", long 124°00'22", in NE 1/4 SE 1/4 sec.33, T.17 S., R.11 W., Lane County, Hydrologic Unit 17100206, at road bridge.	9.91	1968-75, 1977	9-11-87	*5.1	---

UMPQUA RIVER BASIN

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements		Specific conductance (us/cm)
					Date	Discharge (ft^3/s)	
14308700 Days Creek	South Umpqua River	Lat 42°58'55", long 123°08'55", in NE 1/4 sec.10, T.30 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on left bank 150 ft downstream from Wood Creek, 1.0 mi northeast of town of Days Creek, and at mile 1.3.	55.3	1956-72‡	8-27-87	*0.23	---

‡ Operated as a continuous-record gaging station.
* Base flow.
a Approximately.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)	Specific conductance (us/cm)
		UMPQUA RIVER BASIN--Continued					
Middle Creek	Cow Creek	Lat 42°48'44", 123°35'39", in SW 1/4 sec.1, T.32 S., R.7 W., Douglas County, Hydrologic Unit 17100302, at mouth.	---	---	9- 8-87	*1.7	305
143107[illegible] South Myrtle Creek	Myrtle Creek	Lat 43°01'55", long 123°11'30", in SE 1/4 sec.20, T.29 S., R.4 W., Douglas County, on left bank 0.6 mi downstream from School Hollow, 5.5 mi east of town of Myrtle Creek, and at mile 7.3.	43.9	1956-72‡	8-27-87	1.6	---
14311000 North Myrtle Creek	.....do.....	Lat 43°02'30", long 123°15'30", in SW 1/4 sec.14, T.29 S., R.5 W., Douglas County, Hydrologic Unit 17100302, on left bank 300 ft downstream from Bilger Creek, 1.5 mi northeast of town of Myrtle Creek, and at mile [illegible].2.	54.2	1956-86‡	8-27-87	0.89	- -
14312400 Silent Creek	Diamond Lake	Lat 43°07'36", long 122°09'33", in T.28 S., R.6 E. (unsurveyed), Douglas County, Hydrologic Unit 17100301, in Umpqua National Forest, on right bank 25 ft upstream from Summer Homes Road and 3.7 mi southwest of town of Diamond Lake.	8.24	1972-77‡	8-31-87	*25	58
Short Creek	.....do.....	Lat 43°08'22", long 122°08'10", (unsurveyed), Douglas County, Hydrologic Unit 17100301, at mouth.	---	1975, 1977	8-31-87	*b9.3	147
		COOS RIVER BASIN					
Eel Creek	Tenmile Creek	Lat 43°34'40", long 124°11'17", in NE 1/4 NE 1/4 sec.13, T.23 S., R.13 W., Coos County, Hydrologic Unit 17100304, at south Eel Creek Campground, approximately 0.1 mi upstream from mouth.	11.0	1957-77	9-11-87	*3.2	78
14323200 Tenmile Creek near Lakeside	Pacific Ocean	Lat 43°34'40", long 124°11'30", near center of sec.13, T.23 S., R.13 W., Coos County, Hydrologic Unit 17100304, in Siuslaw National Forest, near left bank on downstream side of highway bridge, 200 ft upstream from Eel Creek, 0.8 mi upstream from Saunders Creek, and 1.0 mi west of Lakeside.	87.0	1957-76‡	9-11-87	*12	102
Tenmile Creek	.....do.....	NE 1/4 sec.34, T.15 S., R.12 W., Coos County, Hydrologic Unit 17100304.	87.0	1977	8-25-87	*12	60
Tioga Creek	South Fork Coos River	Lat 43°15'37", long 123°48'50", in SW 1/4 sec.31, T.26 S., R.9 W., Coos County, Hydrologic Unit 17100304, at road bridge 0.5 mi upstream from Burnt Creek.	---	1977	9-10-87	*0.12	67
Burnt Creek	Tioga Creek	Lat 43°15'40", long 123°48'23", in SE 1/4 sec.31, T.26 S., R.9 W., Coos County, Hydrologic Unit 17100304, at mouth.	---	---	9-10-87	*0.14	56
14324500 West Fork Millicoma River near Allegany	Millicoma River	Lat 43°28'35", long 124°03'20", in SW 1/4 NW 1/4 sec.19, T.24 S., R.11 W., Coos County, Hydrologic Unit 17100304, on left bank at highway bridge, 40 ft upstream from Daggett Creek, 3.8 mi north of Allegany, and at mile 6.8.	46.9	1955-81‡	9-10-87	*1.9	65

‡ Operated as a continuous-record gaging station.
* Base flow.
b Springfed.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements		Specific conductance (uS/cm)
					Date	Discharge (ft³/s)	
		COOS RIVER BASIN--Continued					
North Slough	Coos Bay	Lat 43°30'14", long 124°10'04", in SW 1/4 NE 1/4 sec.7, T.24 S., R.12 W., Coos County, Hydrologic Unit 17100304.	2.42	1958-72, 1973	9-10-87	*0.16	112
Left Branch North Slough	North Fork of North Slough	Lat 43°31'13", long 124°11'45", in NW 1/4 sec.1, T.24 S., R.13 W., Coos County, Hydrologic Unit 17100304, at road crossing.	1.71	1957-67, 1969-72, 1973	9-11-87	*0.51	124
Pony Creek Diversion	---	Lat 43°22'37", long 124°14'03", in NW 1/4 sec.27, T.25 S., R.13 W., Coos County, Hydrologic Unit 17100304.	---	---	6- 8-87	*7.9	---
		COQUILLE RIVER BASIN					
14324700 South Fork Coquille River	Coquille River	Lat 42°43'30", long 124°00'40", in NW 1/4 sec.16, T.33 S., R.11 W., Coos County, Hydrologic Unit 17100305, in Siskiyou National Forest, on left bank 1.0 mi downstream from Lockhart Creek, 7.0 mi north of Illahe, and at mile 85.1.	40.6	1956-74‡	9- 8-87	*1.2	74
Middle Fork Coquille River	South Fork Coquille River	Lat 42°58'22", long 123°45'00", in SW 1/4 sec.10, T.30 S., R.9 W. Coos County, Hydrologic Unit 17100305, 0.3 mi downstream from Twelvemile Creek.	---	1973	9-11-87	0.22	---
14326500 Middle Fork Coquille River	.....do.....	Lat 43°01'30", long 124°05'20", in NW 1/4 SE 1/4 sec.26, T.29 S., R.12 W., Coos County, Hydrologic Unit 17100305, 0.33 mi downstream from Indian Creek, 2.0 mi upstream from South Fork, and 3.75 mi southeast of Myrtle Point.	305	1930-46‡	9- 9-87	*3.6	120
14326800 North Fork Coquille River	Coquille River	Lat 43°11'03", long 124°04'33", in SW 1/4 SE 1/4 sec.35, T.27 S., R.12 W., Coos County, Hydrologic Unit 17100305, on right bank 0.2 mi downstream from Lost Creek, 2.2 mi south of Fairview, and at mile 22.2.	73.9	1963-81‡	9- 9-87	*6.2	93
East Fork Coquille River	North Fork Coquille River	Lat 43°09'24", long 123°59'20", in SE 1/4 sec.10, T.28 S., R.11 W., Coos County, Hydrologic Unit 17100305.	---	1977	9- 9-87	*5.0	---
Elk Creek	East Fork Coquille River	Lat 43°06'39", long 124°01'04", in SW 1/4 sec.28, T.28 S., R.11 W., Coos County, Hydrologic Unit 17100305, approximately 0.3 mi upstream from mouth.	---	1977	9- 9-87	*0.16	---
		NEW RIVER BASIN					
Floras Creek	New River	Lat 42°54'43", long 124°25'45", in SW 1/4 sec.1, T.31 S., R.15 W., Curry County, Hydrologic Unit 17100306, approximately 1.3 mi upstream from Highway 101.	---	1926, 1931-37, 1949-51, 1965-67, 1973	9- 4-87	*1.7	142
		SIXES RIVER BASIN					
Sixes River	Pacific Ocean	Lat 42°48'53", long 124°28'12", in SW 1/4 sec.10, T.32 S., R.15 W., Curry County, Hydrologic Unit 17100306, approximately 0.7 mi upstream from Highway 101.	116	1931-32, 1934-36, 1938, 1949-52, 1967-70‡, 1973	9- 4-87	*9.6	90

‡ Operated as a continuous-record gaging station.
* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements		Specific conductance (us/cm)
					Date	Discharge (ft^3/s)	
		ELK RIVER BASIN					
14327300 Elk River near Sixes	Pacific Ocean	Lat 42°47'45", long 124°29'20", in NW 1/4 NW 1/4 sec.21, T.32 S., R.15 W., Curry County, Hydrologic Unit 17100306, at Ironhead public access, near left bank on downstream side of pier of bridge on U.S. Highway 101, 1.7 mi south of Sixes, 1.9 mi downstream from Indian Creek, and at mile 3.2.	86.1	1932, 1934-36, 1951-52, 1967-70‡, 1973	9- 4-87	*39	80
		EUCHRE CREEK BASIN					
Euchre Creek	Pacific Ocean	Lat 42°33'35", long 124°22'43", in SW 1/4 NE 1/4 sec.8, T.35 S., R.14 W., Curry County, Hydrologic Unit 17100306, approximately 300 ft upstream from old Highway 101 bridge.	---	1932, 1934-36, 1938, 1949-52, 1973-74	9- 4-87	*4.7	78
		ROGUE RIVER BASIN					
Boundary Springs	Rogue River	Lat 43°04'03", long 122°13'46", T.29 S., R.5 E., Klamath County, Hydrologic Unit 17100307, at Crater Lake National Park boundary.	---	1967-68, 1973	8-31-87	*34	63
Bybee Creek	.....do.....	Lat 42°56'02", long 122°25'12", in SE 1/4 NE 1/4 sec.26, T.30 S., R.3 E., Jackson County, Hydrologic Unit 17100307, at Highway 230 crossing.	---	---	8-26-87	*27	---
Dutton Creek	Castle Creek	Lat 42°53'33", long 122°10'07", T.31 S., R.5 E, Klamath County, Hydrologic Unit 17100307, in Crater Lake National Park, at Pacific Crest Trail Crossing.	---	1967-68, 1977-84	8-31-87	*0.34	35
Castle Creek	Rogue River	Lat 42°53'29", long 122°09'58", T.31 S., R.6 E., Klamath County, Hydrologic Unit 17100307, in Crater Lake National Park, at Pacific Crest Trail crossing.	---	1967-68, 1977-84	8-31-87	*0.67	33
Unnamed tributary	Castle Creek	Lat 42°53'24, long 122°09'44", T.31 S., R.6 E., Klamath County, Hydrologic Unit 17100304, Crater Lake National Park, at Pacific Crest Trail crossing.	---	1967-68, 1977-78, 1980-84	8-31-87	no flow	---
Unnamed tributary	.....do.....	Lat 42°53'20", long 122°09'45", T.31 S, R.6 E., Klamath County, Hydrologic Unit 17100304, in Crater Lake National Park, at Pacific Crest Trail crossing.	---	1967-68, 1977-84	8-31-87	no flow	---
Whisky Creek	Unnamed marsh	Lat 42°54'46", long 122°19'08", in SW 1/4 sec.35, T.30 S., R.4 E., Jackson County, Hydrologic Unit 17100304, at Highway 62.	---	1977	8-31-87	*0.90	60
Thousand Springs	Union Creek	Lat 42°53'00", long 122°17'00", SE 1/4 sec.12, T.31 S., R.4 E., Jackson County, Hydrologic Unit 17100304, at Forest Service road crossing.	---	1967-78, 1977	8-25-87	*41	---

‡ Operated as a continuous-record gaging station.
* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)	Specific conductance (us/cm)
		ROGUE RIVER BASIN--Continued					
14333500 Red Blanket Creek	Middle Fork Rogue River	Lat 42°46'40", long 122°25'35", in NW 1/4 NE 1/4 sec.23, T.32 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 1.8 mi downstream from Lick Creek, 3.7 mi northeast of Prospect, and at mile 4.8.	45.5	1925-81‡	8-26-87	*67	---
14353000 West Fork Ashland Creek	Ashland Creek	Lat 42°08'55", long 122°42'55", near line between NW 1/4 and SW 1/4 sec.28, T.39 S., R.1 E., Jackson County, Hydrologic Unit 17100308, in Rogue River National Forest, on left bank 0.3 mi upstream from city diversion, 2.5 mi south of Ashland, and at mile 0.4.	10.5	1924-33‡, 1954-60‡, 1963‡, 1974-82‡	8-25-87	2.2	---
14353500 East Fork Ashland Creek	.....do.....	Lat 42°09'10", long 122°42'30", near line between NE 1/4 and NW 1/4 sec.28, T.39 S., R.1 E., Jackson County, Hydrologic Unit 17100308, Rogue River National Forest, on left bank 0.1 mi upstream from city diversion dam, 2.5 mi south of Ashland, and at mile 0.2.	8.14	1924-33‡, 1954-60‡, 1963‡, 1974-82‡	8-25-87	2.5	---
Galls Creek	Rogue River	Lat 42°26'00", long 123°04'11", on line between SW 1/4 sec.16 and NW 1/4 sec.21, T.36 S., R.3 W., Jackson County, Hydrologic Unit 17100308, at mouth.	---	1977	8-25-87	*0.10	---
14367000 West Fork Williams Creek	Williams Creek	Lat 42°11'00", long 123°20'20", in NW 1/4 sec.18, T.39 S., R.5 W., Josephine County, Hydrologic Unit 17100309, on left bank 0.75 mi upstream from Lone Creek, and 5.5 mi southwest of Williams.	13.0	1946-51‡	8-25-87	*2.9	---
14368000 East Fork Williams Creek	.....do.....	Lat 42°10'50", long 123°15'50", in NW 1/4 sec.14, T.39 S., R.5 W., Josephine County, Hydrologic Unit 17100309, 0.25 mi downstream from Rocky Creek (also known as Rock Creek or Clapboard Gulch), and 4.0 mi south of Williams.	11.6	1946-50‡	8-25-87	*2.1	---
14368500 Powell Creek	.....do.....	Lat 42°16'00", long 123°17'40", near center of sec.16, T.38 S., R.5 W., Josephine County, Hydrologic Unit 17100309, on left bank 0.1 mi upstream from Blodgett ditch intake, and 2.0 mi northwest of Williams.	8.17	1946-58‡	8-25-87	no flow	---
Slate Creek	Applegate River	Lat 42°21'40", long 123°31'10", in SW 1/4 sec.10, T.37 S., R.7 W., Josephine County, Hydrologic Unit 17100309, on left bank 0.6 mi upstream from Elliot Creek and 0.7 mi east of Wonder.	31.4	1913-14‡, 1944-57‡	8-28-87	*1.0	280
14373500 Althouse Creek	East Fork Illinois River	Lat 42°06'00", long 123°31'30", in SE 1/4 sec.9, T.40 S., R.7 W., Josephine County, Hydrologic Unit 17100311, on right bank 0.5 mi upstream from Tarter Gulch and 1.8 mi southeast of Holland.	24.3	1944-53‡, 1977	8-28-87	*4.8	153

‡ Operated as a continuous-record gaging station.
* Base flow.

Discharge measurements at miscellaneous sites during water year 1987--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)	Specific conductance (us/cm)
		ROGUE RIVER BASIN--Continued					
Cave Creek	Sucker Creek	Lat 42°05'50", long 123°24'48", in SW 1/4 SE 1/4 sec.9, T.40 S., R.6 W., Josephine County, Hydrologic Unit 17100311, on trail near park boundary.	---	---	9- 5-77 9- 3-87	*0.28 *0.25	258 ---
River Styx	Cave Creek	Lat 42°05'54", long 123°24'22", in SE 1/4 SE 1/4 sec.9, T.40 S., R.6 W, Josephine County, Hydrologic Unit 17100311, approximately 50 ft inside of gate into caves.	---	---	9- 5-77 9- 3-87	*0.11 *0.17	240 ---
14375500 West Fork Illinois River	East Fork Illinois River	Lat 42°02'20", long 123°44'50", in SW 1/4 SE 1/4 sec.34, T.40 S., R.9 W., Josephine County, Hydrologic Unit 17100311, Siskiyou National Forest, on left bank 0.2 mi downstream from Rock Creek, 3.0 mi southwest of O'Brien, and at mile 12.8.	42.4	1954-85‡	9- 3-87	*2.8	162
14377500 Deer Creek near Dryden	Illinois River	Lat 42°15'50", long 123°27'00", near center of sec.18, T.38 S., R.6 W., Josephine County, Hydrologic Unit 17100301, on left bank 500 ft downstream from confluence of North and South Forks, and 5.0 mi east of Dryden.	22.0	1942-56‡, 1977	8-28-87	*0.46	145
		HUNTER CREEK BASIN					
Hunter Creek	Pacific Ocean	Lat 42°22'14", long 124°24'15", in SE 1/4 sec.18, T.37 S., R.14 W., Curry County, Hydrologic Unit 17100312, approximately 0.3 mi upstream from road bridge.	---	1931, 1934, 1936, 1973	8- 4-87	*1.6	149
		PISTOL RIVER BASIN					
Pistol River	Pacific Ocean	Lat 42°16'06", long 124°22'38", in SE 1/4, SE 1/4 sec.20, T.38 S., R.14 W., Curry County, Hydrologic Unit 17100312.	---	1932, 1935, 1949-50	9- 4-87	*8.0	140
		CHETCO RIVER BASIN					
North Fork Chetco River	Chetco River	Lat 42°04'37", long 124°12'41", near line between NE 1/4 and NW 1/4 sec.35, T.40 S., R.13 W., Curry County, Hydrologic Unit 17100312, 0.3 mi upstream from mouth.	---	1977	9- 3-87	no flow	---

‡ Operated as a continuous-record gaging station.
* Base flow.

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\text{x}10^{1}$	millimeters (mm)
	$2.54\text{x}10^{-2}$	meters (m)
feet (ft)	$3.048\text{x}10^{-1}$	meters (m)
miles (mi)	$1.609\text{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\text{x}10^{3}$	square meters (m^2)
	$4.047\text{x}10^{-1}$	square hectometers (hm^2)
	$4.047\text{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\text{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\text{x}10^{0}$	liters (L)
	$3.785\text{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\text{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\text{x}10^{3}$	cubic meters (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\text{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\text{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\text{x}10^{3}$	cubic meters (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic meters (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\text{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\text{x}10^{1}$	liters per second (L/s)
	$2.832\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\text{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\text{x}10^{-2}$	liters per second (L/s)
	$6.309\text{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\text{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\text{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\text{x}10^{-1}$	megagrams (Mg) or metric tons

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